

WHO Go.Data 2.0 – User Manual

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Installation

To install the platform, download the installation kit for your platform and follow the instructions on the screen. The following platforms are supported: Windows 7 and higher, Mac OSX, Linux.

The installers are available for 32-bit and 64-bit here: <http://54.164.207.48:42000/>. This URL is subject to change once the installers will be deployed on WHO's servers.

1. Windows installer:
 - a. Download the x86 or the x64 installer and run.
 - b. Follow installer instructions

2. Linux installer:

- a. CLI installer

- i. Open Terminal and download the x86 or x64 installer:

```
wget http://54.164.207.48:42000/x86/go-data-linux-x86.tar.gz
```

```
wget http://54.164.207.48:42000/x64/go-data-linux-x64.tar.gz
```

- ii. Unzip the files

```
tar -xvzf go-data-linux-x86.tar.gz
```

```
tar -xvzf go-data-linux-x64.tar.gz
```

- iii. Run the launch script. Optionally, the following arguments can be passed:

- --dbport
 - specifies the port for Mongo
 - between 1025 and 65535
 - must be different from port
 - defaults to 27017
- --dbpath
 - specifies the path for Mongo files
 - defaults to db
- --port
 - specifies the port for Go.Data
 - between 1025 and 65535
 - must be different from dbport
 - defaults to 8000
- --type
 - hub or consolidation
 - it is not advised to change this value after the first Go.Data launch
 - defaults to hub

```
./go-data-x64 --dbport=3001 --dbpath=~/Desktop/db --port=3000 --type=consolidation
```

- b. GUI installer
 - i. TBD
3. Mac OSX:
 - a. Download the x64 installer and run.
 - b. Follow installer instructions
4. Android APK:
5. Apple iOS:
 - a. Install through TestFlight App.

Auto-updater

The auto-updater is based on the package.json version number and the files updater/app-update-x64.yml and updater/app-update-x86.yml.

To publish a new update, increase the version number in package.json and in go-data/build/package.json, build the app for distribution and upload the following files on the update server:

- for OSX: .dmg .zip and latest-mac.yml files
- for Windows: .exe and latest.yml files
- for Linux: TBD
- for Linux CLI: Not available

Uninstall

1. Windows uninstaller

Uninstall Go.Data from Add or Remove Programs

Optionally, remove the data folder from C:\Users\username\AppData\Roaming\GoData

2. Mac uninstaller

Delete the Go.Data application from /Applications

Optionally, remove the data folder from ~/Library/Application Support/Go.Data

3. Linux uninstaller

TBD

4. Linux CLI uninstaller

Remove the folder where GoData was unarchived

Optionally, remove the folder set as dbpath

Import Data

Go.Data platform uses an import system that allows users to use files to import various data, such as, cases, contacts, lab results, etc. The system supports a variety of files: csv, xls, xlsx, xml, ods, json.

System overview

In order to import data from a file, you need to go to the resource you're interested to import, click on "Quick Actions" and "Import <resourceName>", choose the file you want to import, optionally provide a file decrypt password (if the file is encrypted by another Go.Data instance) and upload the file. The system will read the file and offer you information on what the file contains (columns/headers and info about what's inside the file).

In order for the system to understand the data you want to import, you need to provide a mapping between the imported file columns/headers and the resource fields. You need, at the very least to provide mapping information for the required fields.

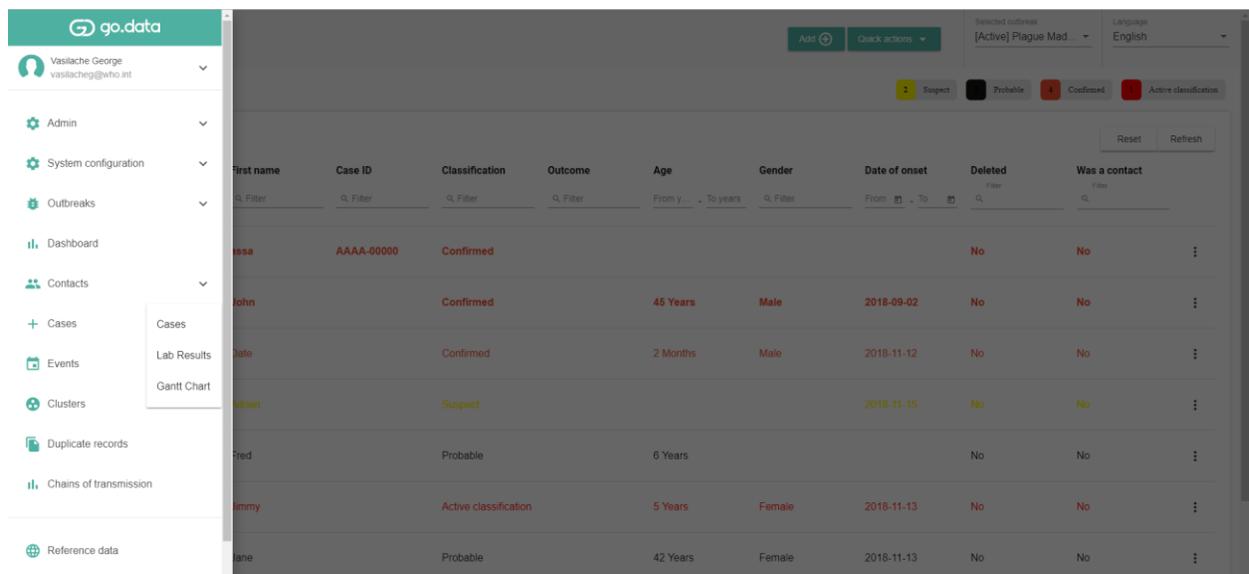
When a resource field is restricted to a list of values (not a free text field) that comes from reference data, you also need to map each value in the field to a system value.

When a resource field allows specifying a list (array) of entries, you can also specify the index of the entry you want to map by specifying the level.

After you're done with the mapping, click "Import File", the system will now start importing data. The system will inform you after the import is completed about the import status and will present errors for the entries that failed to be imported.

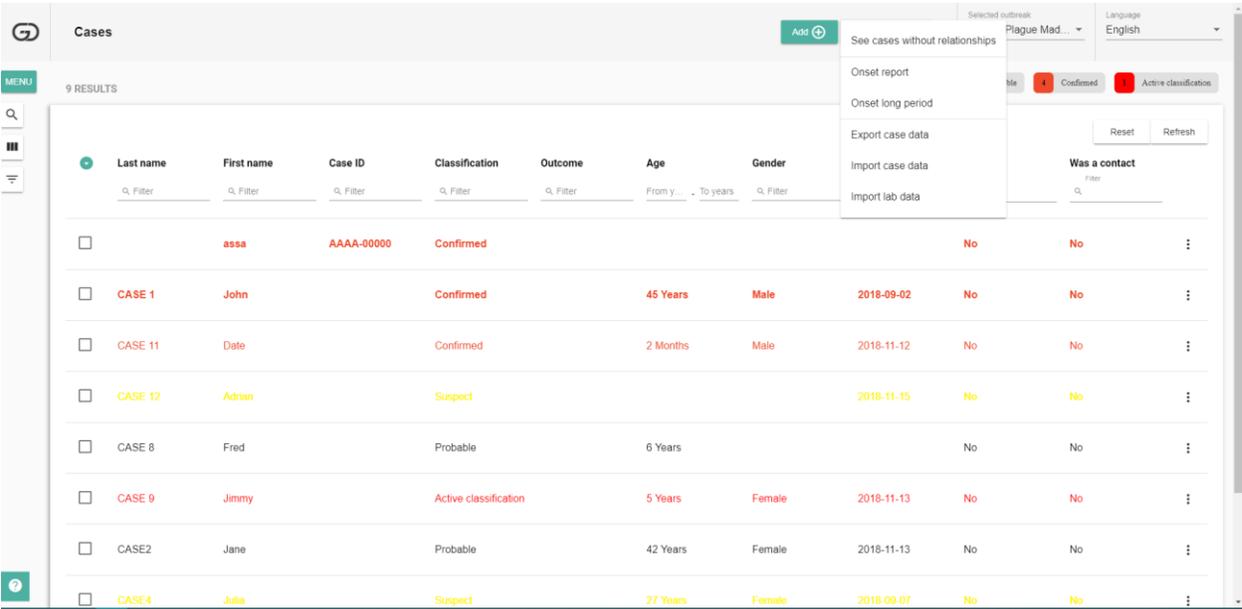
Example: Importing Case Data

Step 1: Go to the resource you're interested to import (Case) and click "Quick Actions" > "Import case data".



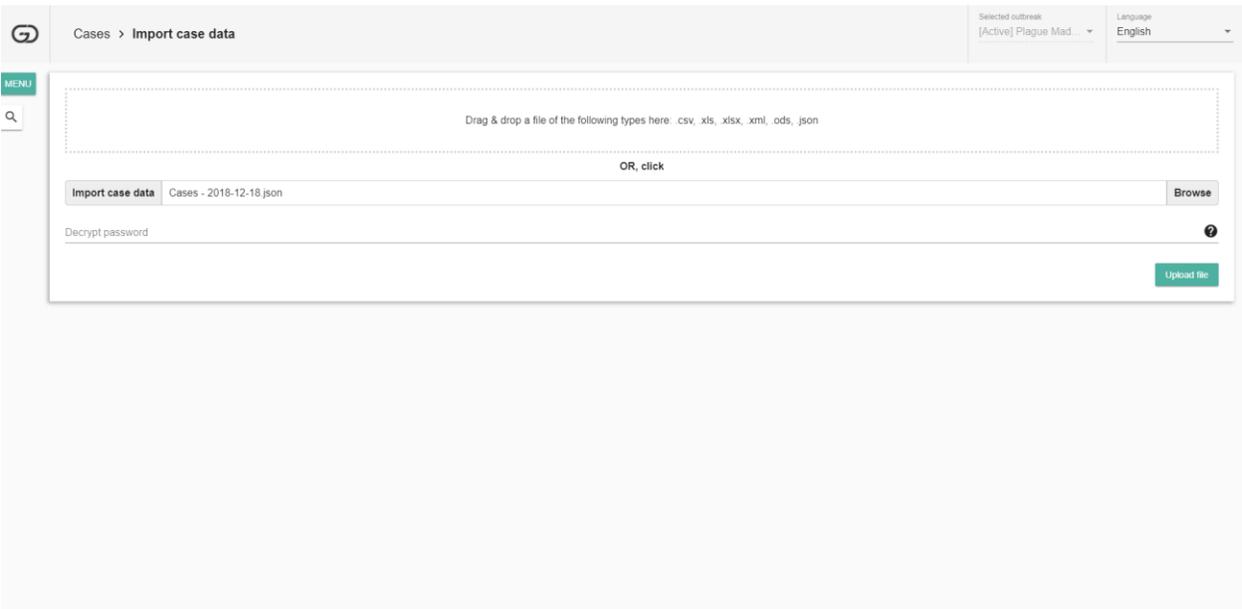
First name	Case ID	Classification	Outcome	Age	Gender	Date of onset	Deleted	Was a contact
Issa	AAAA-00000	Confirmed					No	No
John		Confirmed		45 Years	Male	2018-09-02	No	No
John		Confirmed		2 Months	Male	2018-11-12	No	No
John		Suspect				2018-11-15	No	No
Fred		Probable		6 Years			No	No
Jimmy		Active classification		5 Years	Female	2018-11-13	No	No
Jane		Probable		42 Years	Female	2018-11-13	No	No

Navigate to Cases List



Navigate to Import case data

2. Select the file you want to import (optionally provide a decrypt password if the file is encrypted by a Go.Data instance) and upload the file.



Import System: Select File to be imported

3. You'll be presented with a mapping interface that will allow you to map information from the file to resource information. Greyed out resource information (Model Information) represent required fields that need to be mapped in order for the resource to be imported successfully. The system will try to suggest mappings automatically, based on the field names; you can remove mapping or remap fields to your own preference.

Cases > Import case data

Selected outbreak: [Active] Plague Mad
Language: English

Source file information	Model information
Select source * ID	Select destination * ID
Select source * Created at	Select destination * Created at
Select source * Created by	Select destination * Created by
Select source * Updated on	Select destination * Updated on
Select source * Updated by	Select destination * Updated by
Select source * Deleted	Select destination * Deleted
Select source * Deleted At	Select destination * Deleted At
Select source * First name	Select destination * First name
Select source * Middle name	Select destination * Middle name
Select source * Last name	Select destination * Last name

Import System: Map file fields to resource fields

4. For the fields that use a restricted list of values (Reference Data), such as Gender, Occupation, etc. you need to map each value in the file to a valid Reference Data value. The system will also try to suggest mappings based on the labels.

Select source * Gender	Select destination * Gender
Select source * Female	Select destination * Female
Select source * Male	Select destination * Male
+ Add field option	
Select source * Occupation	Select destination * Occupation
Select source * Civil servant	Select destination * Civil servant
Select source * teacher	Select destination * Teacher
Select source * Religious leader	Select destination * Religious leader
Select source * Student	Select destination * Student
Select source * Health care worker	Select destination * Health care worker
Select source * Butcher	Select destination * Butcher
+ Add field option	

Map file field values to resource field values

5. When a resource field allows specifying a list (array) of entries (such as Isolation Dates), you can also specify the index of the entry you want to map by specifying the level (in order to have Isolation Start Date and Isolation End Date in the same record, you need to specify same index (Level) for both entries; specifying different levels, will end up in the fields being mapped to different entries).

Select source *	Select destination *	Select level *
Case ID	Case ID	
Select source *	Select destination *	
Fill geolocation	Fill geolocation	
Select source *	Select destination *	
Date of reporting approximate	Date of reporting approximate	
Select source *	Select destination *	
Questionnaire		
Select source *	Select destination *	Select level *
Isolation dates[] Isolation Start Date	Isolation dates => Isolation Start Date	1
Select source *	Select destination *	Select level *
Isolation dates[] Isolation end date	Isolation dates => Isolation end date	1
Select source *	Select destination *	
Age Age / Years	Age / Years	
Select source *	Select destination *	
Age Age / Months	Age / Months	
Select source *	Select destination *	Select level *
Documents[] Document Type	Documents => Document Type	1
Select source *	Select destination *	
External case ID	External case ID	
Select source *	Select destination *	
Other	Other	
Select source *	Select destination *	
My External ID	My External ID	
Select source *	Select destination *	
National ID card	National ID card	
Select source *	Select destination *	
Select source *	Select destination *	

Specify Level/Index for list (array) resources

6. After you're done with the mapping, click "Import File", the system will now start importing data. The system will inform you after the import is completed about the import status and will present errors for the entries that failed to be imported.

Cases > Import case data
Selected outbreak [Active] Plague Mad...
Language English

Some of the records weren't imported

- Failed to import record 4 because of outbreak invalid case id mask
- Failed to import record 6 because address must have a place of residence
- Failed to import record 7 because address must have a place of residence
- Failed to import record 8 because address must have a place of residence
- Failed to import record 10 because of outbreak invalid case id mask
- Failed to import record 11 because address must have a place of residence
- Failed to import record 27 because address must have a place of residence
- Failed to import record 39 because address must have a place of residence
- Failed to import record 40 because address must have a place of residence
- Failed to import record 41 because address must have a place of residence
- Failed to import record 42 because address must have a place of residence
- Failed to import record 45 because of outbreak invalid case id mask
- Failed to import record 53 because address must have a place of residence
- Failed to import record 80 because of outbreak invalid case id mask
- Failed to import record 83 because of outbreak invalid case id mask
- Failed to import record 86 because of outbreak invalid case id mask
- Failed to import record 87 because of outbreak invalid case id mask
- Failed to import record 88 because of outbreak invalid case id mask
- Failed to import record 89 because of outbreak invalid case id mask
- Failed to import record 90 because of outbreak invalid case id mask
- Failed to import record 91 because of outbreak invalid case id mask
- Failed to import record 92 because of outbreak invalid case id mask
- Failed to import record 93 because of outbreak invalid case id mask
- Failed to import record 94 because of outbreak invalid case id mask
- Failed to import record 95 because of outbreak invalid case id mask
- Failed to import record 96 because of outbreak invalid case id mask
- Failed to import record 97 because of outbreak invalid case id mask
- Failed to import record 98 because of outbreak invalid case id mask
- Failed to import record 99 because of outbreak invalid case id mask
- Failed to import record 100 because of outbreak invalid case id mask

Try again

Records failed to be imported and reasons

User Operations

Logging in

To log in the system, go to your Hub URL and enter your user name and password, then hit Log in.

Logging out

To log out the system, click your user name in the left right corner and click Log out.

Changing password

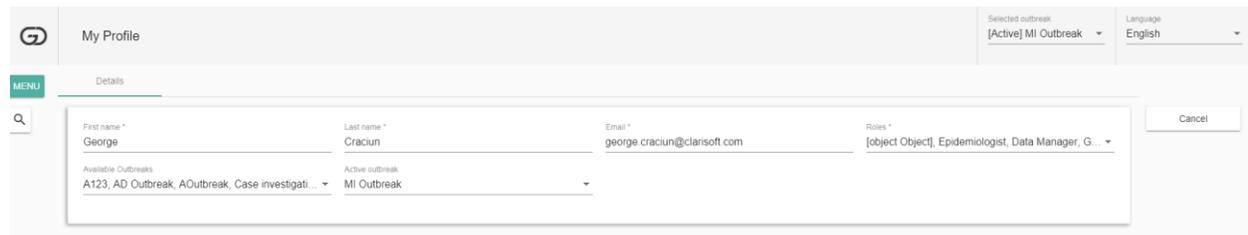
To change your password, click your user name in the left right corner and click Change password, then follow instructions on the screen.

Setting security questions

To set security questions, click your user name in the left right corner and click Security questions, then follow instructions on the screen.

My profile

To update your profile data (first name, last name, email address, available outbreaks or active outbreak) click your user name in the menu and then click My Profile.



The screenshot displays the 'My Profile' page. At the top, there is a navigation bar with a 'G' logo, the text 'My Profile', and dropdown menus for 'Selected outbreak' (set to '[Active] MI Outbreak') and 'Language' (set to 'English'). Below the navigation bar is a 'MENU' section with a search icon and a 'Details' tab. The main content area contains a profile form with the following fields:

Field	Value
First name *	George
Last name *	Craciun
Email *	george.craciun@clarisoft.com
Roles *	[object Object], Epidemiologist, Data Manager, G...
Available Outbreaks	A123, AD Outbreak, AOutbreak, Case investigati...
Active outbreak	MI Outbreak

A 'Cancel' button is located to the right of the form.

My Profile page

Administration

User roles

After Installing the system, the next step is to create user roles. To do this, click Admin and then click Roles. This screen will show the list of user roles that exist in the system. Any number of user roles can be created, and each role can have its own permissions.

This screen will display the following information about each User Role in the system:

1. Name – a relevant name for the role like Admin, Contact Tracer, etc.
2. Description – a verbose description of the Role. (for example: Assign this role to people that are collecting data in the field)
3. Options – a set of predefined system permissions assign to the role.

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

To add a new role, click Add button on the top of the page.

To modify a role, click the actions button to the right of the role and click Modify.

To delete a role, click the actions button to the right of the role and click Delete.

To view a role, click the actions button to the right of the role and click View.

Users

After creating the User roles, the next step is to create users. To do this, click Admin and then click Users. This screen will show the list of users that exist in the system. Any number of user can be created, and each users can have its own user roles assigned to it.

This screen will display the following information about each User in the system:

1. Last Name
2. First Name
3. Email – will be used to connect
4. Roles – a set of roles assigned to that user
5. Outbreaks – a set of available outbreaks that user can access.

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

To add a new user, click Add button on the top of the page.

To modify a user, click the actions button to the right of the user and click Modify.

To delete a user, click the actions button to the right of the user and click Delete.

To view a user, click the actions button to the right of the user and click View.

Each user will have one Active Outbreak. This outbreak has to be set from the Add/Modify User screen.

To reset the password for a user, you have to also access the Add/Modify User screen.

Audit logs

This screen will display all the changes performed on any record in the system. The following information will be displayed.

1. Action - New, Modified, Deleted.
2. Record ID - the ID of the record that was modified.
3. Record name - is the name of the record like User, Person, etc.
4. Time - the GMT time when the records was modified.
5. Changes - shows the first section of the new and old values. Click Expand to see the information about the entire record.
6. User - user who made the change
7. User Role – role of the use who made the change
8. IP Address – from what IP address was this change made.

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

Languages

This screen will display the following information about each backup language stored in the system:

1. Name – the language name

To add a new Language, click Add button on the top of the page.

To modify a Language, click the actions button to the right of the Language and click Modify.

To delete a Language, click the actions button to the right of the Language and click Delete.

To view a Language, click the actions button to the right of the Language and click View.

To download the file for a language, click Download language file. After you modify the Language file as you see appropriate, you can upload it in the system by clicking Import Language File.

Select Language

The language can be selected from the top right corner.

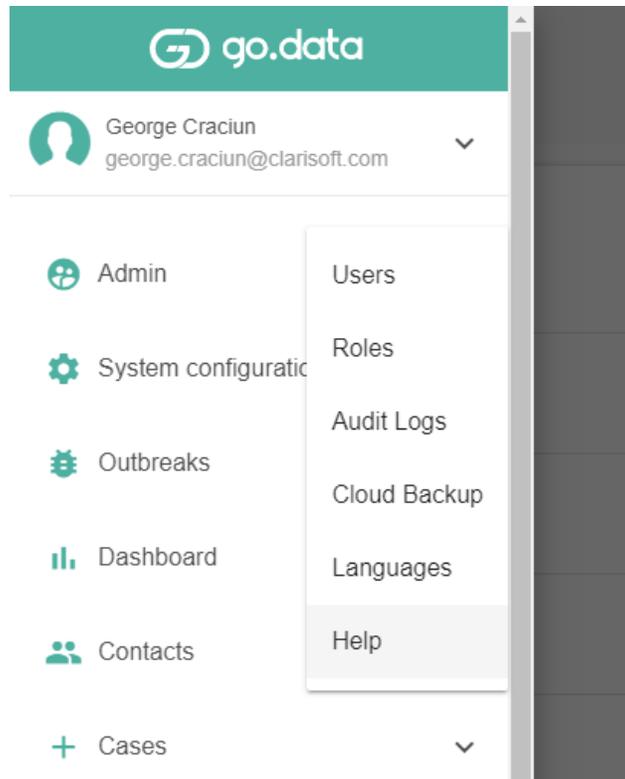
Cloud backups

This screen will display the path where the data and configuration are located, so a user that has a cloud backup system can add the folder to the backup path of that particular system.

Help

The help content can be managed by a user with the corresponding permissions.

In order to manage the help content, go to Admin menu and then click on Help. You will first have to configure the help categories. Then, for each category, you can manage its help items.



Accessing help management page

For each category, you have the following options in the menu: See Help items, View, Modify and Delete.

When clicking on See Help Items, you will see all the help items from a specific category.

Name	Description	Order
Administration	How to configure Go Data	1
Contact Follow-Up	A test category for UAT.	99
Followups	Followups help	1
Outbreaks	Outbreaks details	2

Help categories page

When you create a help item, it will initially be not approved. A user with the permission to approve items will then be able to approve it. This will basically make the help item public (it will be visible in the global help page). In order to approve a help item ,you need to find the respective item under its category and then click on menu item Approve.

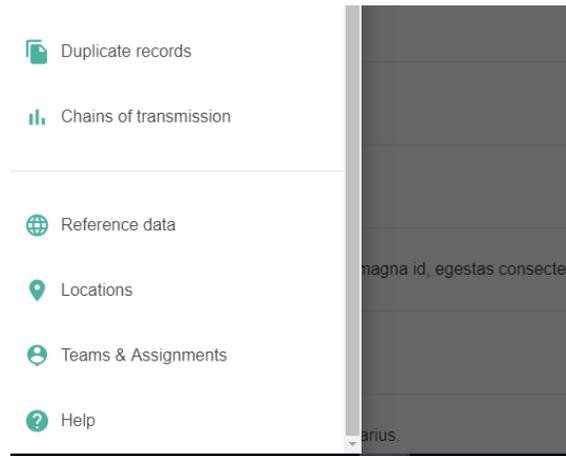
Title	Comment	Approved	Approved By	Approved Date
User roles		Yes	George Craciun	2018-11-20
How to create client applications		No		
How to initially configure a hub	aaa	Yes	George Craciun	2018-11-13

Help items page

The help item content can be formatted using a WYSIWYG editor.

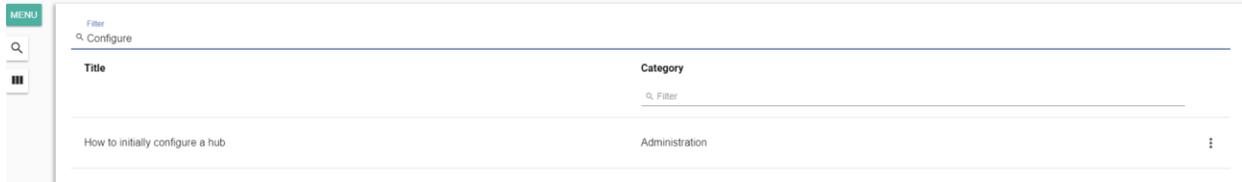
Create / Modify help items

In order to access the global help page to see the help items, you will find the Help menu entry at the bottom.



Accessing help global page

This page is available to any user and you can search / filter the items by both Category or using a text search which will find keywords inside the content or title of the help item. See example below:



Searching Help items

There is also a context sensitive help which will deliver some help items on specific pages based on some keywords.

When there are help items set for a specific page, a question mark icon will appear in the bottom left corner. When you click it, you will access a page with the help items configured to be displayed on that page.

The help items that are available to context sensitive section can be configured from the admin section described above. When you modify a help item, you will see a field called 'Page' . This field can be set 'URL-like'. For example, if you want a help item to be available in outbreak modify page, it would look like this: `"/outbreaks/*/modify"`. Basically, the `*` symbol will replace any string (mostly IDs). If you want it to be available in the outbreaks list page, you would add it such as: `"/outbreaks"`

FluOutbreak test	Ebola virus disease	Portugal / Romania
GC Outbreak	Ebola virus disease	Albania / Algeria
JulyOutbreak	Ebola virus disease	
Long Outbreak	Active disease	Albania

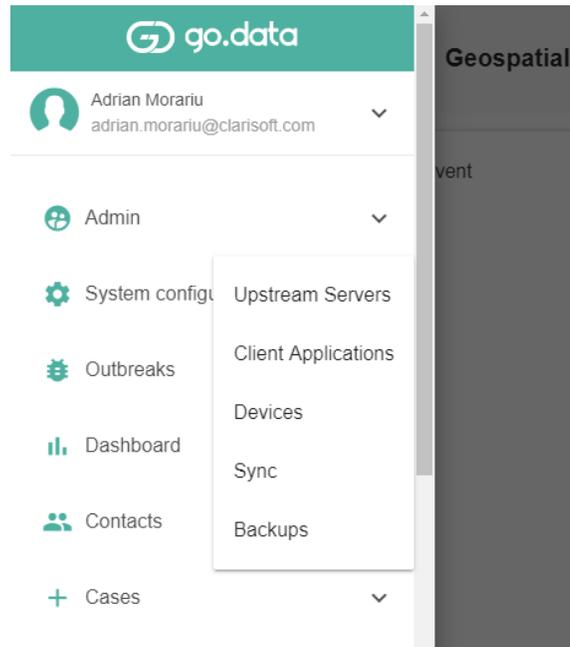
Accessing Context Sensitive Help

System configuration

Upstream Servers

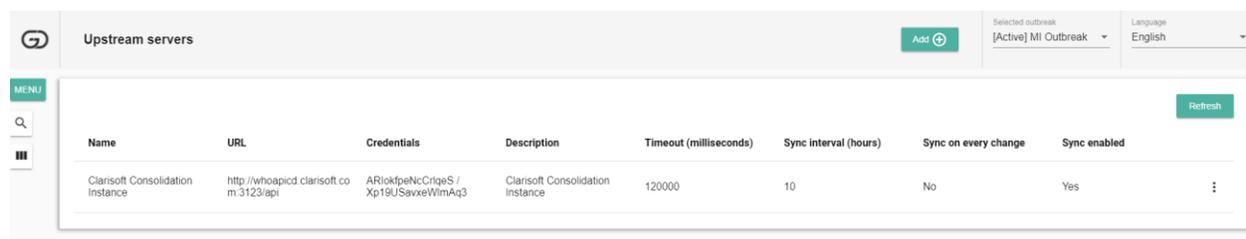
The platform can send data up to any number of servers. These servers can be set up clicking Upstream servers. An upstream server can collect data from any number of devices or hubs for maximum flexibility.

1. Upstream Servers page can be accessed through the main menu:
 - System Configuration - Upstream Servers



Accessing Upstream Servers page

2. On this page you should see a list with the following columns:



Name	URL	Credentials	Description	Timeout (milliseconds)	Sync interval (hours)	Sync on every change	Sync enabled	
Clarisoft Consolidation Instance	http://whoapicd.clarisoft.com:3123/api	ARiokfpeNcCrIqzS / Xp19USavxeWlmAq3	Clarisoft Consolidation Instance	120000	10	No	Yes	⋮

Upstream Servers page

- Name: server identification
- URL: Upstream server API location
- Credentials (Client ID & Client Secret): Client Application credentials
- Description: Short description about the upstream server
- Timeout (milliseconds): How long will the synchronisation system wait for sync to start processing data
- Sync interval (hours)

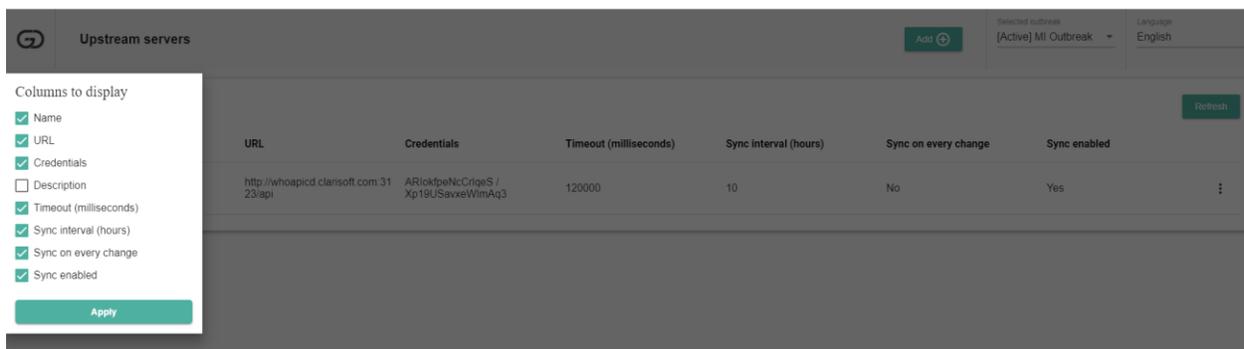
- Sync on every change: A flag telling the synchronisation system if it should sync data on every change
- Sync enabled: A flag telling the system if this upstream server is active

3. Visible columns

This functionality allows you to either show or hide columns displayed in the upstream server table. You can access this functionality by clicking the “3 rectangles in a line button” which is located under Main Menu button. If you click on it, you should see the list of columns

- checked: visible
- unchecked: hidden

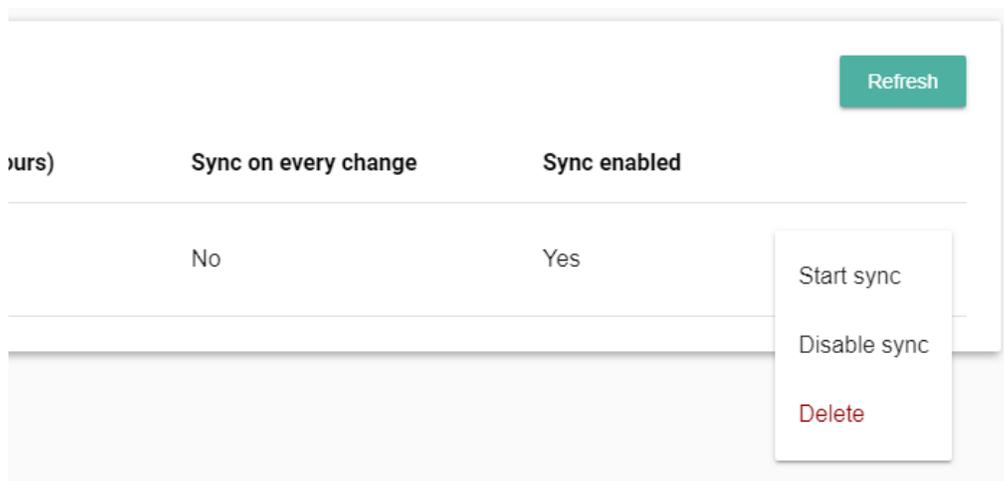
You might notice that some of the columns from the table aren't in this list (e.g. Action column - ellipsis). This is because these columns should always be visible.



Visible Columns

4. Upstream server actions

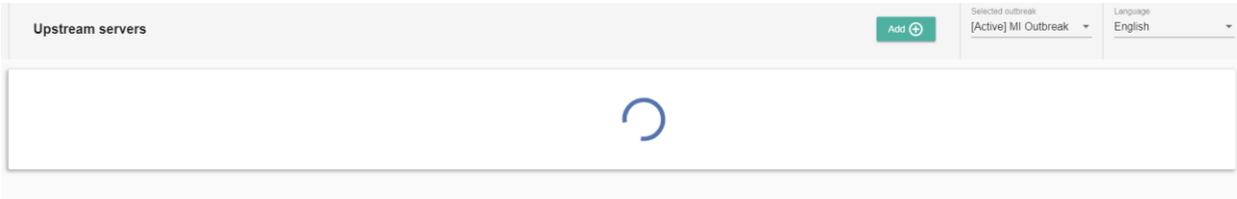
Record actions can be accessed by clicking the “ellipsis” button from the right of the record.



Record Actions

Possible actions for upstream servers are:

- Start sync: This action will start syncing information
 - a spinner will be visible while sync is in place. Once sync finishes, you will see the sync list again (if you close / leave this page you won't know anymore when the sync has finished).



- Disable / Enable sync:
 - Enable will be visible if upstream server is inactive (active flag is set to false)
 - Disable will be visible if upstream server is active (active flag is set to true)
- Delete: This action allows you to delete upstream server.
 - As a precaution, a confirmation dialog will be displayed before actually deleting the record.

5. Create Upstream server

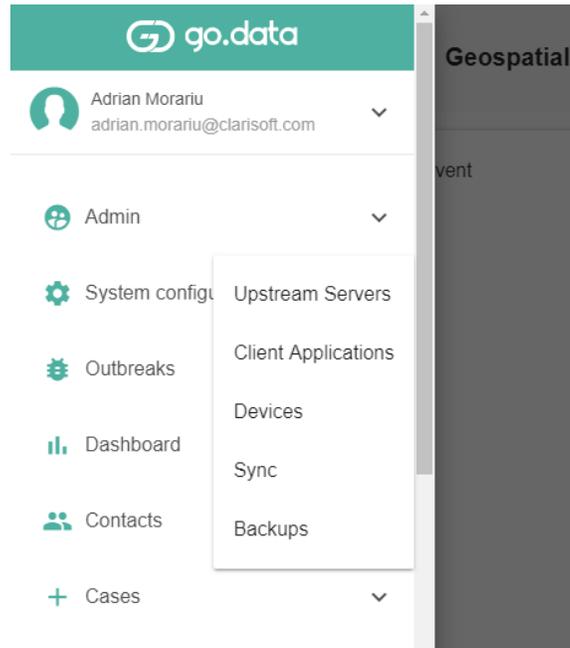
You can create a new Upstream server by clicking on the “Add” button from the Upstream server list page which is located on the left side of the “Selected outbreak” dropdown. All fields from this page were described above.

Create Upstream Server

Client Applications

This feature is used to create credentials for client applications that are allowed to connect to this server. This must be used for mobile devices that send data to the hub, and for servers that send the data up to the consolidation Upstream servers.

1. Client Applications page can be accessed through the main menu:
 - System Configuration - Client Applications



Accessing Client Applications page

2. On this page you should see a list with the following columns:

Client applications				Selected outbreak	Language
Name	Credentials	Active	Outbreaks	[Active] MI Outbreak	English
mobile	test / test	Yes	All outbreaks		

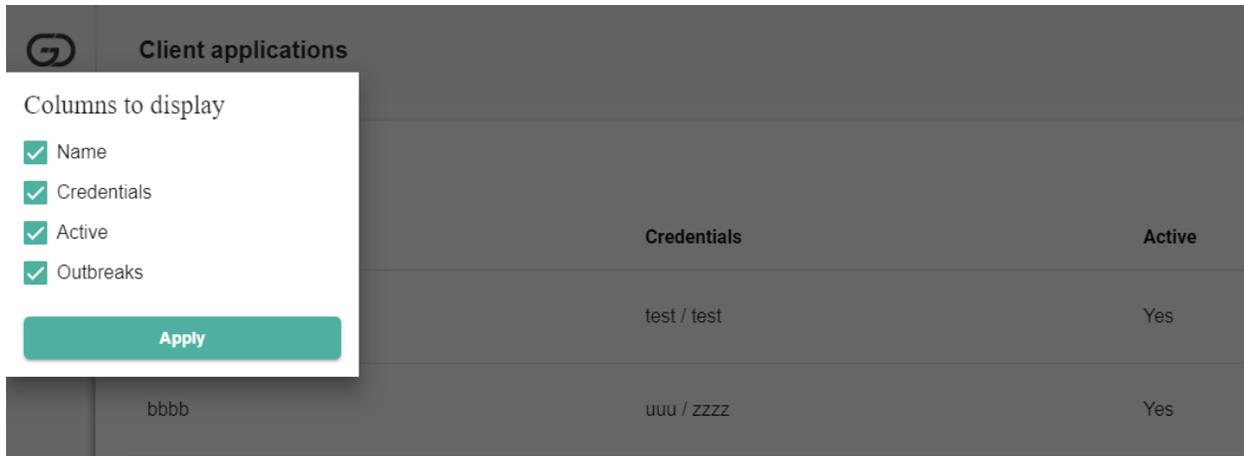
Client Applications page

- Name: client application identification
 - Credentials (Client ID & Client Secret): Client Application credentials used for API connection by sync upstream servers
 - Active: A flag telling the system if this client application is active and if it can be used for synchronisation
 - Outbreaks: List of outbreaks to which sync is restricted. If no restriction is required, this can be empty
3. Visible columns

This functionality allows you to either show or hide columns displayed in the client applications table. You can access this functionality by clicking the “3 rectangles in a line button” which is located under Main Menu button. If you click on it, you should see the list of columns

- checked: visible
- unchecked: hidden

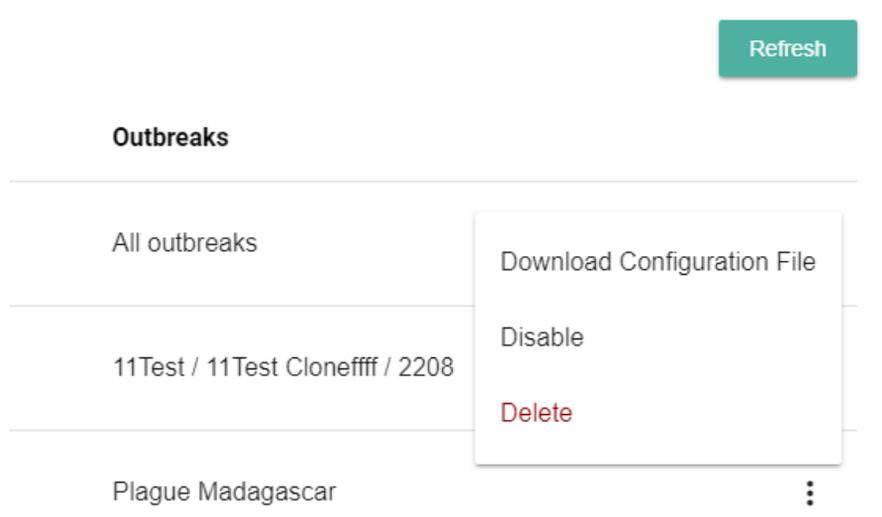
You might notice that some of the columns from the table aren't in this list (e.g. Action column - ellipsis). This is because these columns should always be visible.



Visible Columns

4. Client applications actions

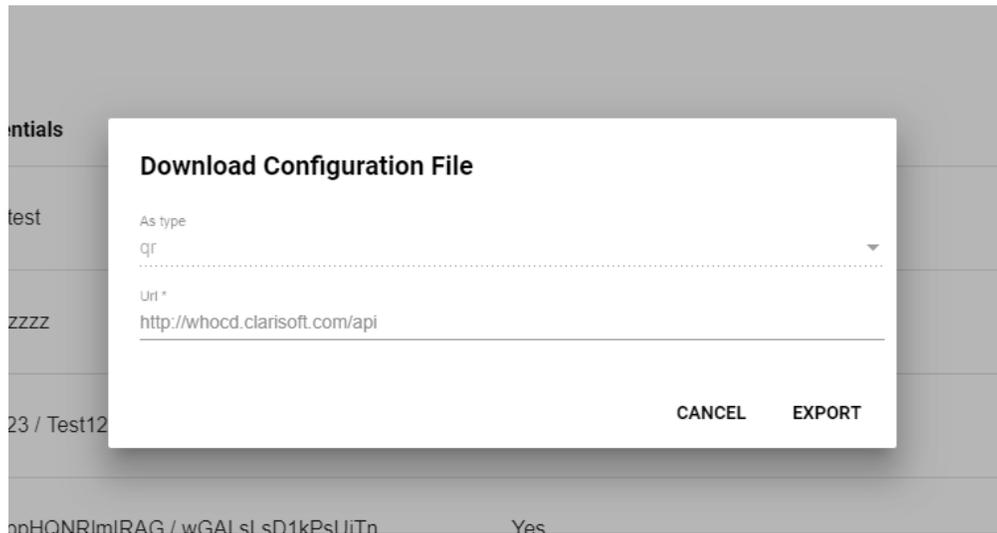
Record actions can be accessed by clicking the “ellipsis” button from the right of the record.



Record Actions

Possible actions for client applications are:

- Download Configuration File: This action allows you to generate a configuration qr code used by mobile apps



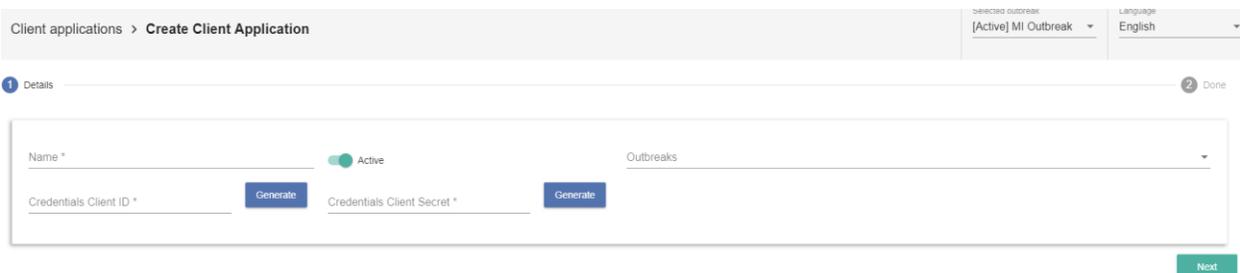
Client Application generate configuration qr code

- Disable / Enable sync:
 - Enable will be visible if client application is inactive (active flag is set to false)
 - Disable will be visible if client application is active (active flag is set to true)
- Delete: This action allows you to delete a client application.
 - As a precaution, a confirmation dialog will be displayed before actually deleting the record.

5. Create Client Application

You can create a new Client application by clicking on the “Add” button from the Client Applications list page which is located on the left side of the “Selected outbreak” dropdown. All fields from this page were described above.

In case you don’t want to set something specific as in the two credentials fields, you can use the generate button to generate a random Client ID / Client Secret.

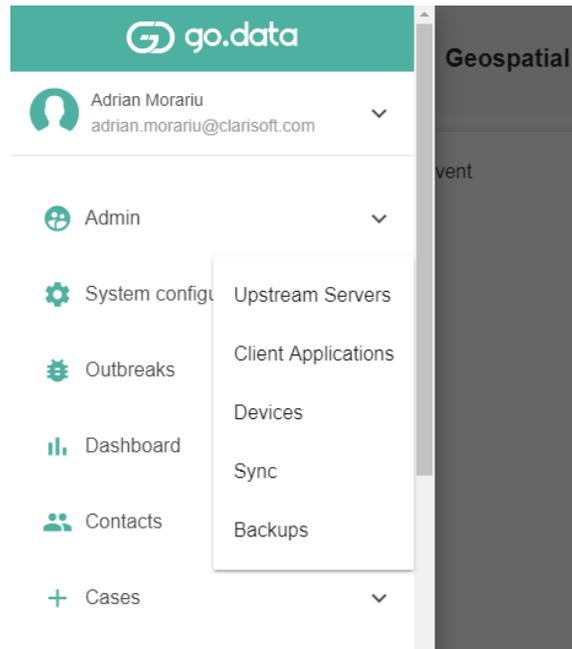


Create Application Client

Devices

This page show the list of devices that used the system in the past.

1. Devices page can be accessed through the main menu:
 - System Configuration - Devices



Accessing Devices page

2. On this page you should see a list with the following columns:

Name	Description	Physical Device Id	Manufacturer	Model	Operating System	Status	Last Seen
Unknown	test/test	b67a000d-ca10-48f1-876b-1470d4208f69	HUAWEI	MYA-L41	android	Ready to Wipe	2018-12-20
Test device	dsa dsa dsa dsa dsad s dsadsa dsadsadsadsa	2345678956	Samsung	s9	Android	Pending Wipe	2018-12-18

Devices page

- Name: device identification
 - Description: some extra device information
 - Physical Device Id: Device information
 - Manufacturer: Device information
 - Model: Device information
 - Operating System: Device information
 - Status
 - Last Seen: last connection to the system
3. Visible columns

This functionality allows you to either show or hide columns displayed in the devices table. You can access this functionality by clicking the “3 rectangles in a line button” which is located under Main Menu button. If you click on it, you should see the list of columns

- checked: visible
- unchecked: hidden

You might notice that some of the columns from the table aren't in this list (e.g. Action column - ellipsis). This is because these columns should always be visible.

Columns to display	Description	Physical Device Id	Manufacturer	Model	
<input checked="" type="checkbox"/> Name	test/test	b87a000d-ca10-48f1-876b-1470dd208f69	HUAWEI	MYA-L41	
<input checked="" type="checkbox"/> Description	dsa dsa dsa dsa dsad s dsadsa dsadsadsadsa	2345678956	Samsung	s9	
<input checked="" type="checkbox"/> Physical Device Id	test/test	7617c748-e631-4a0d-8f00-7613ecf647b9	Apple	iPhone 6 Plus	
<input checked="" type="checkbox"/> Manufacturer	test/test	f25c01c9-8f91-4976-90d0-4646ce878ae4	Apple	iPhone 6 Plus	
<input checked="" type="checkbox"/> Model	ASDASD ASD	qweqwe	234567895	Samsung	s9
<input checked="" type="checkbox"/> Operating System					
<input checked="" type="checkbox"/> Status					
<input checked="" type="checkbox"/> Last Seen					

Visible Columns

4. Devices actions

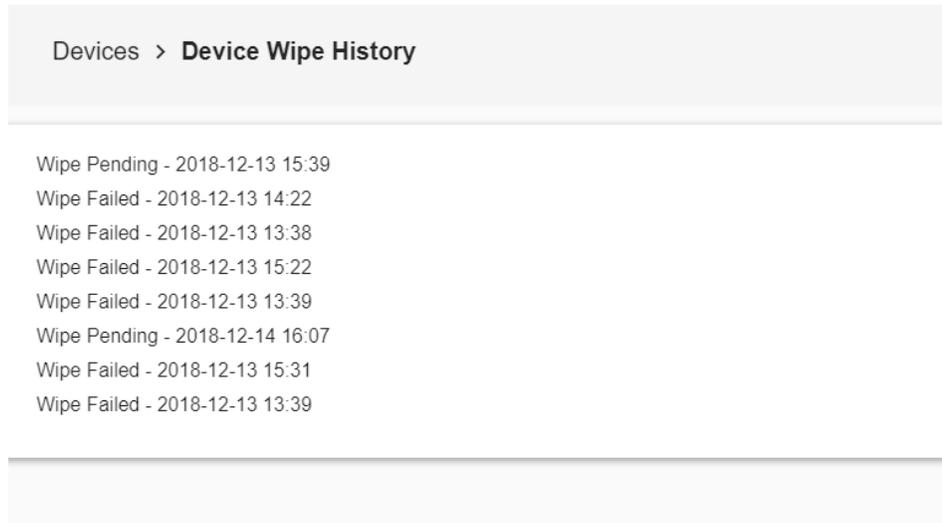
Record actions can be accessed by clicking the “ellipsis” button from the right of the record.

	Last Seen	
Wipe	2018-12-20	View History
Vipe	2018-12-18	Modify
Wipe	2018-12-18	Wipe
		Delete

Record Actions

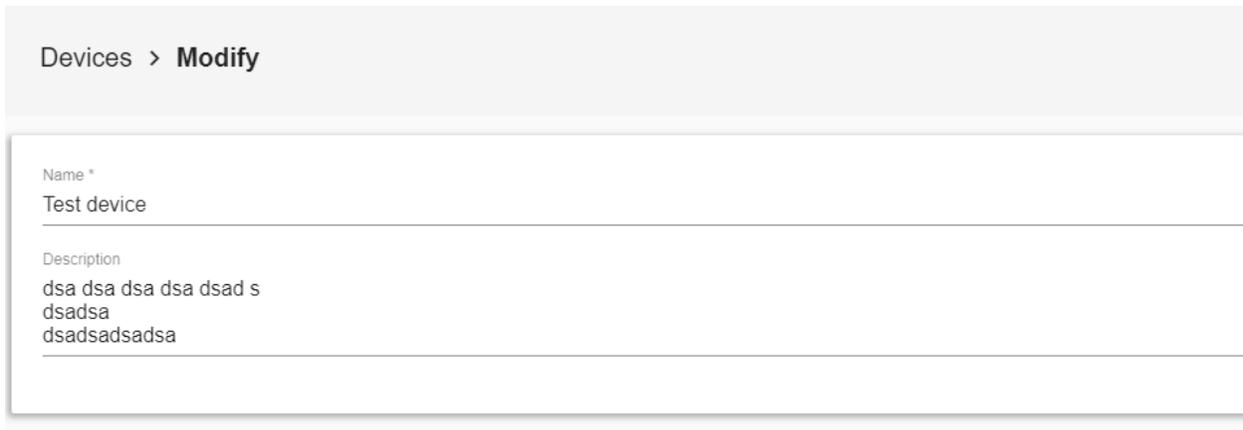
Possible actions for devices are:

- View History: will open wipe history page for the selected device



Device Wipe History

- Modify: Allows you to set name & description for the selected record



Device Modify

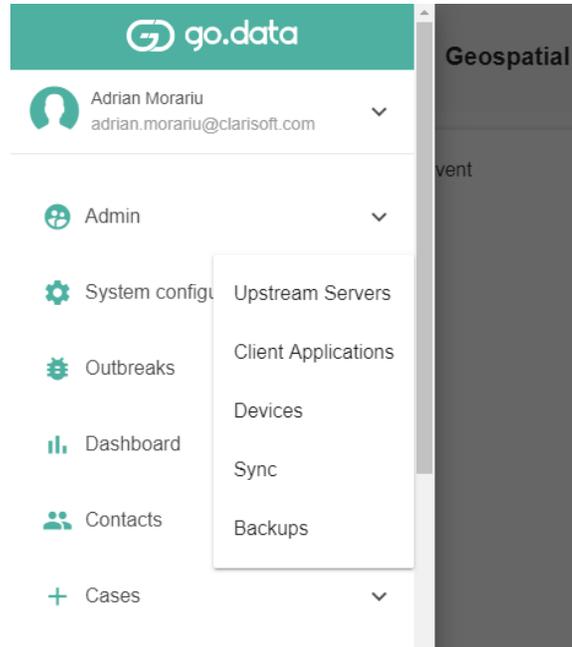
- Wipe: Will start wipe
- Delete: This action allows you to delete a device connection information.

As a precaution, a confirmation dialog will be displayed before actually deleting the record.

Sync Logs

This page show the list of synchronizations that were executed in the past

1. Sync Logs page can be accessed through the main menu:
 - System Configuration - Sync



Accessing Sync Logs page

2. On this page you should see a list with the following columns:

Server URL	Client ID	Action Start Date	Action Completion Date	Outbreaks	Status	Information Start Date	Refresh
<input type="text"/>	<input type="text"/>	From <input type="text"/> To <input type="text"/>	From <input type="text"/> To <input type="text"/>	<input type="text"/>	<input type="text"/>	From <input type="text"/> To <input type="text"/>	
23		2018-11-09 13:02	2018-11-09 13:02	All outbreaks	Failed		

Sync Logs page

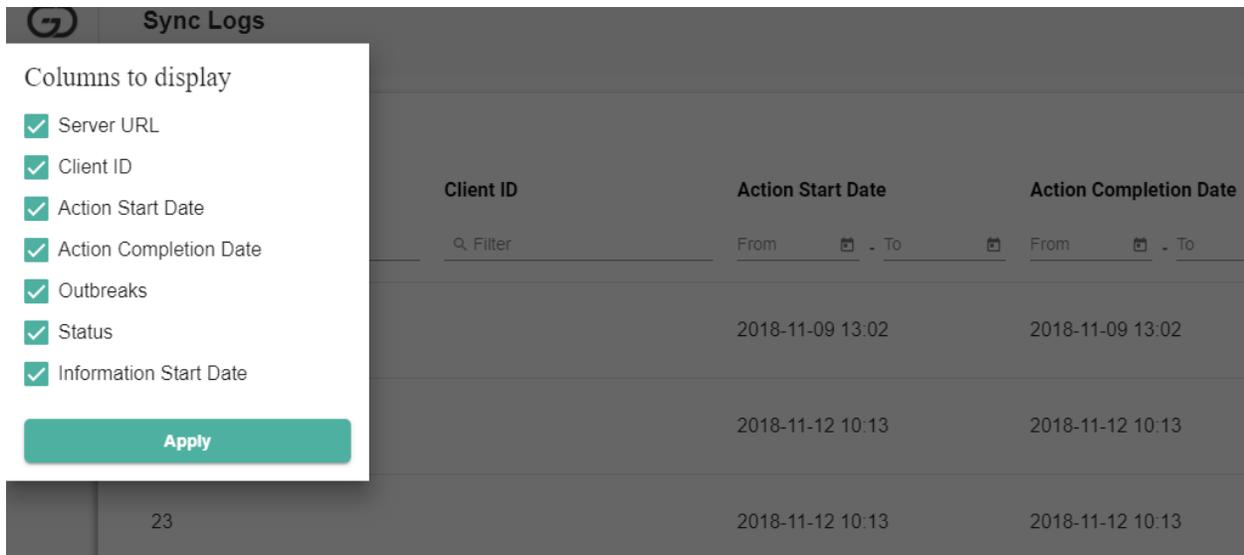
- Server URL
- Client ID
- Action Start Date
- Action Completion Date
- Outbreaks
- Status
- information Start Date

3. Visible columns

This functionality allows you to either show or hide columns displayed in the Sync Logs table. You can access this functionality by clicking the “3 rectangles in a line button” which is located under Main Menu button. If you click on it, you should see the list of columns

- checked: visible
- unchecked: hidden

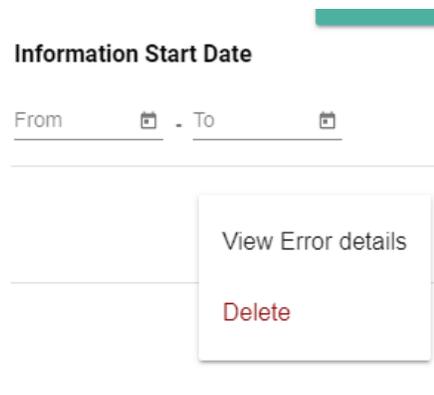
You might notice that some of the columns from the table aren't in this list (e.g. Action column - ellipsis). This is because these columns should always be visible.



Visible Columns

4. Sync Logs record actions

Record actions can be accessed by clicking the “ellipsis” button from the right of the record.



Record Actions

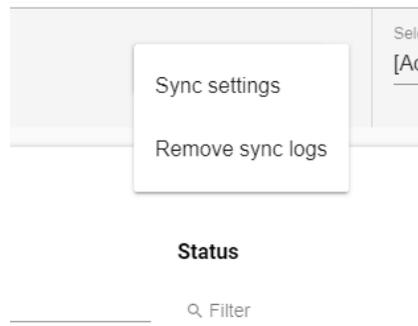
Possible actions for sync logs are:

- View Error details: this option will be visible only if sync failed, and it allows you to see more details about what was the cause of the failure.
- Delete: This action allows you to delete a device connection information.

As a precaution, a confirmation dialog will be displayed before actually deleting the record.

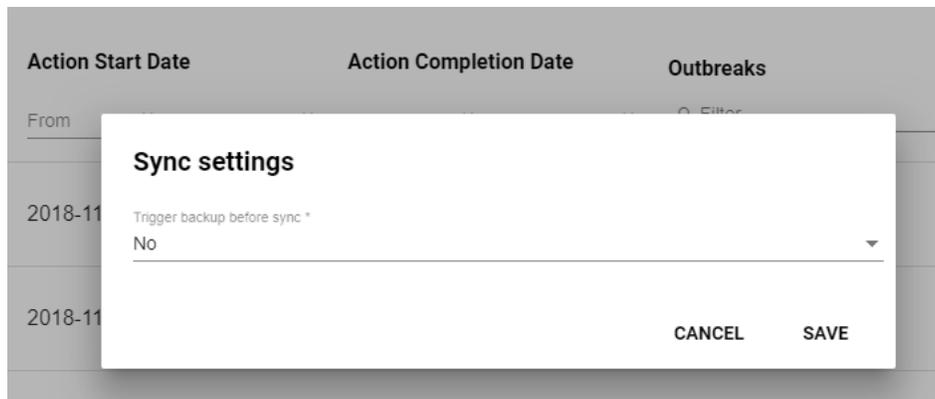
5. Sync logs quick actions

Quick actions can be found on the left side of the Selected outbreak dropdown. Possible actions for sync logs are:



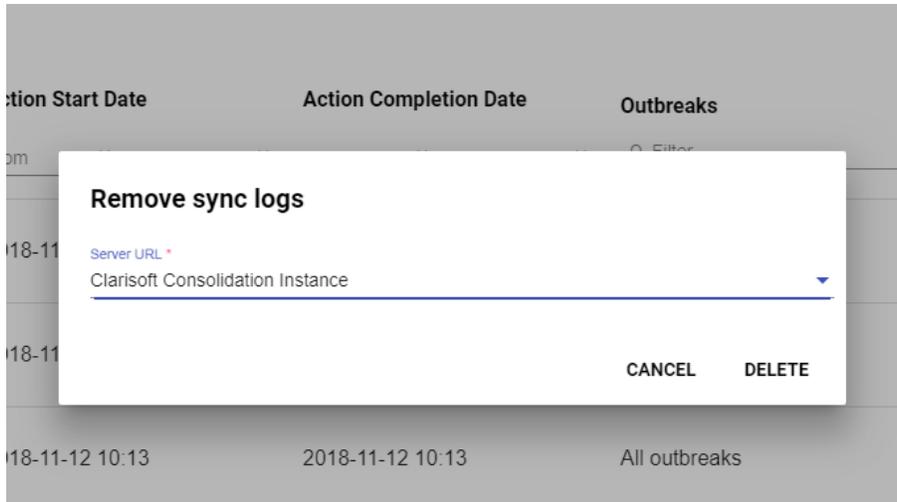
Sync Logs quick actions

- Sync settings: Allows you to configure general sync settings



Sync Logs sync settings

- Remove sync logs: this action allows you to remove all logs related to a specific Server URL, so you don't have to delete record by record.



Sync Logs Remove server logs

Backups

This screen will display the following information about each backup performed by the system:

1. Location – where is the backup stored
2. Module – what was saved (data, configuration files, etc.)
3. Date – date of the backup
4. Status – status of the backup (success, error)
5. Error - error message

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

Actions:

1. Manual Backup – to perform a manual backup, click Backup data button, select modules and path and click Backup
2. Automated backups - To enable or modify automated backups, click Automated backup settings button and follow instructions on the screen, then click Save to save the schedule.

Locations

This screen will display the following information about each Location stored in the system:

1. Name – the Location name
2. Synonyms – synonyms for the location that can be used in the search process
3. Lat/Lang – latitude and longitude of the location, used to geo code addresses that do not have such data collected on a GPS enabled device.
4. Active – define if the location will show in the address entering form (Active = Yes) or not (Active = No)

To add a new Location, click Add button on the top of the page.

To modify a Location, click the actions button to the right of the Location and click Modify.

To delete a Location, click the actions button to the right of the Location and click Delete.

To view a Location, click the actions button to the right of the Location and click View.

To modify Children Locations for a certain location, click the actions button to the right of the Location and click Children Locations.

To see in which outbreak a location is used, click the actions button to the right of the Location and click Location Usage.

To export the location and its children, click Quick Actions and then click Export Hierarchical Locations.

To export a location and its children, click Quick Actions and then click Import Hierarchical Locations.

To download the file for a Location, click Download Location file. After you modify the Location file as you see appropriate, you can upload it in the system by clicking Import Location File.

Reference Data

This screen will display the following information about each backup Reference stored in the system:

1. Category Name – the name of the reference category
2. Entries – the items in that category

To view a Reference, click the actions button to the right of the Reference and click View.

To modify items in that Category, you can:

- Add new values
- Modify the icons related to an item
- Modify an item Label, Description, Icon, Color, Status (Active/Inactive)
- Modify any item that is not a system value and drives business logic.

Outbreaks

Outbreaks

This screen will display the following information about all Outbreaks stored in the system:

1. Name – the Outbreak name
2. Disease – disease selected from Reference data
3. Countries – countries list selected from Location data.
4. Start Date – when the outbreak started
5. End Date – when the outbreak ended (optional)

To add a new Outbreak, click Add button on the top of the page.

To modify an Outbreak, click the actions button to the right of the Outbreak and click Modify.

To delete an Outbreak, click the actions button to the right of the Outbreak and click Delete.

To view an Outbreak, click the actions button to the right of the Outbreak and click View.

To clone an Outbreak, click the actions button to the right of the Outbreak and click Clone.

To make an Outbreak active, click the actions button to the right of the Outbreak and click Set Active.

To see a report with data inconsistencies for an Outbreak, click the actions button to the right of the Outbreak and click View Inconsistencies.

An outbreak data can be exported by clicking Quick actions and then clicking Export Outbreak Data.

An outbreak data can be imported by clicking Quick actions and then clicking Import Outbreak Data.

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

Selecting an Outbreak

The outbreak can be selected from the top right corner selection box.

Outbreak Settings

The following information can be set for each outbreak.

1. Name – name of the outbreak
2. Diseases – disease from the reference data
3. Countries – countries selected from the location data
4. Locations – additional location selected from location data
5. Description – verbose description
6. Start date – when the outbreak started
7. End date – when the outbreak has ended (optional)
8. Case ID Mask – a mask used to generate new IDs when a case is added in the system
9. KPIs for follow up and dashboard
10. Case investigation – a set of questions that will be asked when a case investigation is recorded.
11. Contact follow-up – a set of questions that will be asked when a contact follow-up is recorded.

12. Lab results - a set of questions that will be asked when lab results are recorded.

Questions

The following information can be set for each question.

1. Question – text to be displayed on the form
2. Variable – a unique identifier for the question
3. Category – a list of question categories
4. Type – can be Free text, Multiple answers, Single Answer, Numeric, File Upload, Date/Time
5. Required – if the user has to enter an answer during the form entering

Each question can be further modified, duplicated, or deleted

Related questions

A user can determine to display additional questions when a certain answer is selected. To do this, check the question button on that particular answer and enter the related question below.

Templates

Templates functionality is very similar to the outbreak, except they cannot be used to collect data. An Outbreak can be quickly created from an Outbreak by clicking Action button and then clicking Generate Outbreak.

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

Cases

Case List

This screen will display the following information about all Cases stored in the system:

1. Last Name
2. First Name
3. Classification – value from Reference data
4. Age – exact age of approximate age in years and months
5. Gender – value from Reference data

To add a new Case, click Add button on the top of the page.

To add a Contact for a Case, click the actions button to the right and click Add Contact.

To add multiple Contacts for a Case, click the actions button to the right and click Bulk Add Contact.

To modify a Case, click the actions button to the right of the Case and click Modify.

To delete a Case, click the actions button to the right of the Case and click Delete.

To view a Case, click the actions button to the right of the Case and click View.

To convert a Case to a Contact, click the actions button to the right of the Case and click Convert to Contact.

To view Case movement on the map, click the actions button to the right of the Case and click View movement.

To view Case chronology, click the actions button to the right of the Case and click View chronology.

To view Case relationships, click the actions button to the right of the Case and click See relationships.

To view Case lab results, click the actions button to the right of the Case and click See lab results.

To view Case follow-ups, click the actions button to the right of the Case and click View Follow-ups.

To generate a Case empty investigation form, click the actions button to the right of the Case and click Export empty case investigation.

To see a report with cases without relationships, click the Quick actions button and click See cases without relationship.

To see the Onset report, click the Quick actions button and click Onset report.

To see the Onset long period report, click the Quick actions button and click Onset long period.

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

Advance filtering is available by clicking the filter menu button on the right. To use wildcards in the search, use * for any latter or group of letters and ? for ay single letter.

Edit case information

The following information can be edited for a case:

Personal Information

- First name
- Middle name
- Last name
- Gender
- Phone number
- Occupation
- Age
- Visual ID

Risk Information

- Risk level
- Date of reporting
- Date of reporting approximate
- Refused transfer to unit
- Risk reason

Documents

- Any number of document ID and type

Address

- Any number of addresses. Each case must have an address with the type Usual Place of Residence.

Infection

- Classification
- Date of onset
- Date of onset approximate
- Date of becoming a case
- Date of infection
- Outcome
 - o Outcome result
 - o Date of outcome
 - o Deceased
 - o Was burial safety performed
 - o Date of death

Questionnaire

- A list of questions and answers for the case investigation based on outbreak settings

Sharing exposures between cases

To copy contacts from one case to another, click Share exposure button, select what exposures you want to share and with what cases.

View lab results for an outbreak

To view lab results for an outbreak, click Cases -> View Lab results. The list can be sorted, filtered as any other list in the system, and then each individual result can be accessed.

Contacts

Contact List

This screen will display the following information about all Contacts stored in the system:

1. Last Name
2. First Name
3. Age – exact age of approximate age in years and months
4. Gender – value from Reference data
5. Phone number
6. Risk level
7. Follow up final status

To add a Follow up for a Contact, click the actions button to the right and click Add Follow-up.

To modify a Contact, click the actions button to the right of the Contact and click Modify.

To delete a Contact, click the actions button to the right of the Contact and click Delete.

To view a Contact, click the actions button to the right of the Contact and click View.

To convert a Contact to a Case, click the actions button to the right of the Contact and click Convert to Case.

To view Contact movement on the map, click the actions button to the right of the Contact and click View movement.

To view Contact chronology, click the actions button to the right of the Contact and click View chronology.

To view Contact relationships, click the actions button to the right of the Contact and click See relationships.

To import Contact data, click the Quick actions button and click Import contact data.

To export Contact data, click the Quick actions button and click Export contact data.

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

Advance filtering is available by clicking the filter menu button on the right. To use wildcards in the search, use * for any latter or group of letters and ? for ay single letter.

Edit Contact information

The following information can be edited for a Contact:

Personal Information

- First name
- Middle name
- Last name

- Gender
- Phone number
- Occupation
- Age
- Visual ID
- Date of reporting
- Date of reporting approximate
- Follow-up final status
- Risk level
- Reason

Documents

- Any number of document ID and type

Address

- Any number of addresses. Each Contact must have an address with the type Usual Place of Residence.

Questionnaire

- A list of questions and answers for the Contact investigation based on outbreak settings

Events

Event List

This screen will display the following information about all Events stored in the system:

1. Name
2. Description
3. Date of the event

To modify an Event, click the actions button to the right of the Event and click Modify.

To delete an Event, click the actions button to the right of the Event and click Delete.

To view an Event, click the actions button to the right of the Event and click View.

To add an Event, click Add button on the top menu.

To add a Contact for a Event, click the actions button to the right and click Add Contact.

To view Event chronology, click the actions button to the right of the Event and click View chronology.

To view Event relationships, click the actions button to the right of the Event and click See relationships.

To view Events without relationships, click the Quick actions button and click View events without relationships.

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

Advance filtering is available by clicking the filter menu button on the right. To use wildcards in the search, use * for any latter or group of letters and ? for ay single letter.

Edit Event information

The following information can be edited for an Event:

- Name
- Date
- Date of reporting approximate
- Description

Address

- Any number of addresses. Each Event must have an address with the type Usual Place of Residence.

Clusters

Cluster List

This screen will display the following information about all Clusters stored in the system:

1. Name
2. Description

To modify a Cluster, click the actions button to the right of the Cluster and click Modify.

To delete a Cluster, click the actions button to the right of the Cluster and click Delete.

To view a Cluster, click the actions button to the right of the Cluster and click View.

To add a Cluster, click Add button on the top menu.

To view People and Events in cluster, click the actions button to the right of the Cluster and click View People.

This list can be sorted by clicking the top name of the column, and be filtered by entering filter information underneath the column name. If you want to go back to the initial state, press Reset button. Press Refresh if you want to get latest data from the database.

Advance filtering is available by clicking the filter menu button on the right. To use wildcards in the search, use * for any latter or group of letters and ? for ay single letter.

Edit Cluster information

The following information can be edited for a Cluster:

- Name
- Description

Chains of transmissions

To view the Chains of transmissions, click the actions button to the menu and select Chains of Transmissions.

Type: the chain of transmission can be displayed as a Bubble network, Hierarchical network, Timeline network for a certain date.

The following information can be customized and is using the Reference data available.

- Show Contacts
- Show Events
- Filter Cases by: Classification, Occupation, Gender, Name, Age, Date, Area
- Node color
- Node label
- Node icon
- Node label color
- Edge color
- Edge label

The legend can be turned on and off, and updates based on the settings of the Chain of transmission.

Graphic drawing

Clicking on a case or contact, will list the person at the bottom of the chain of transmissions. If two persons are selected, then the create relationship form will show and enable the user to create a relationship between them.

Also, once a person is selected, the user can chose to view the details for that person, or the chain of transmissions containing that person.

Chain of transmissions list

The chain of transmissions can be view as a list with the additional information:

- First contact date
- Root case
- Number of cases
- Number of cases alive
- Length
- Duration

Clicking on the root case will graphically display the corresponding chain of transmission only.

Dashboard

The dashboard can be viewed by clicking menu and then selecting Dashboard.

The following dashlets will be displayed:

1. Case summary
2. Case by geographic location
3. Hospitalization summary
4. Histogram
 - a. Clicking on a bar in the list will displayed the chain of transmission with that size only.
5. Epicurve
 - a. The epicurve can be displayed by day, week, and month.
6. Case KPIs
7. Contact KPIs
8. Chain of transmissions KPIs

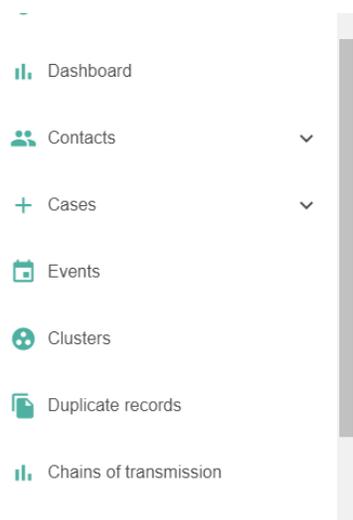
Duplicate records

This page show the list of possible duplicate records from the system (cases, contacts or events). You can have:

- cases that are duplicates
- contacts that are duplicates
- events that are duplicates
- but you should never encounter mixed duplicates (e.g cases with contacts / events)

1. Duplicate records page can be accessed through the main menu:

- Duplicate records



Accessing Duplicate records page

2. On this page you should see a list of possible duplicates

is only one unique option (all merge records have the same information) the system will preselect it, otherwise the use has to select which option should be kept.

Duplicate records > Contact - merge duplicate records

Selected outbreak: [Active] MI Outbreak Language: English

1 Personal 2 Address 3 Done

First Name * aaa	Middle name	Last Name	Gender
Phone	Occupation	Age	
Date of reporting * 2018-10-30	Date of reporting approximate No		

Documents
No documents

Next

Merging the selected records

A new record will be created with data resulted from merging the selected records. The merged records will be removed from the system after this new record is created.

Mobile Application

Hub connection

The mobile app uses a system that allows users to connect to multiple hubs. In this way, adding more hubs, editing the active one, or making one of the others active can be done from the Hub configuration screen, accessible from the side navigation drawer

Configuring the hub and downloading the data

When a new hub is added, the user has 2 options: either scan a QR-code that can be downloaded from the web app, or fill in the hub credentials manually.

The fields that will be completed from the QR-code scan will be the hub url, hub client ID and hub client secret. The hub name needs to be completed by the user with a name chosen by the user. All these fields can be edited later from the Hub configuration screen.

After all the data is filled, the first sync will start. For the first configuration of a new hub, the app will download from the hub the database for those client credentials and will import the data to the local database for offline usage. After the import is finished, the login screen will appear and the user can log in with his credentials (email and password).

Example: Configuring a new hub

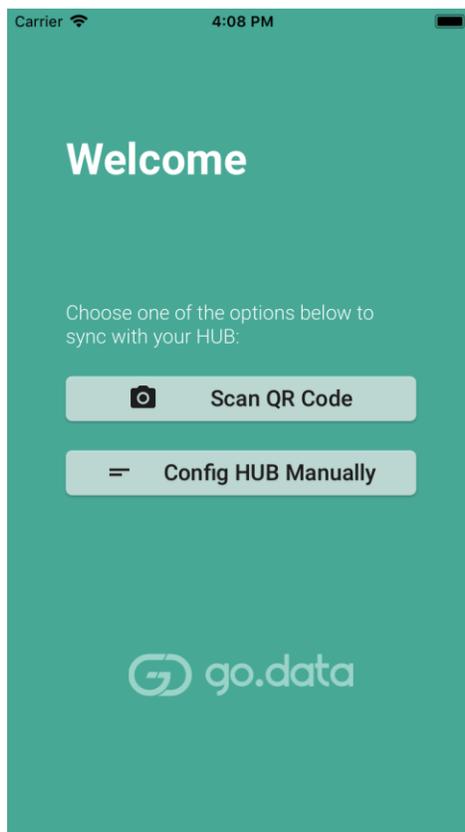


Fig. 1: Welcome screen for new hub configuration

From the first screen the user can either choose to scan the QR-code with the client credentials downloaded from the web app, or fill in the credentials manually.

The QR-code contains the data about the hub URL, client ID and client secret, so the user will still have to fill in the hub name with anything he wants.

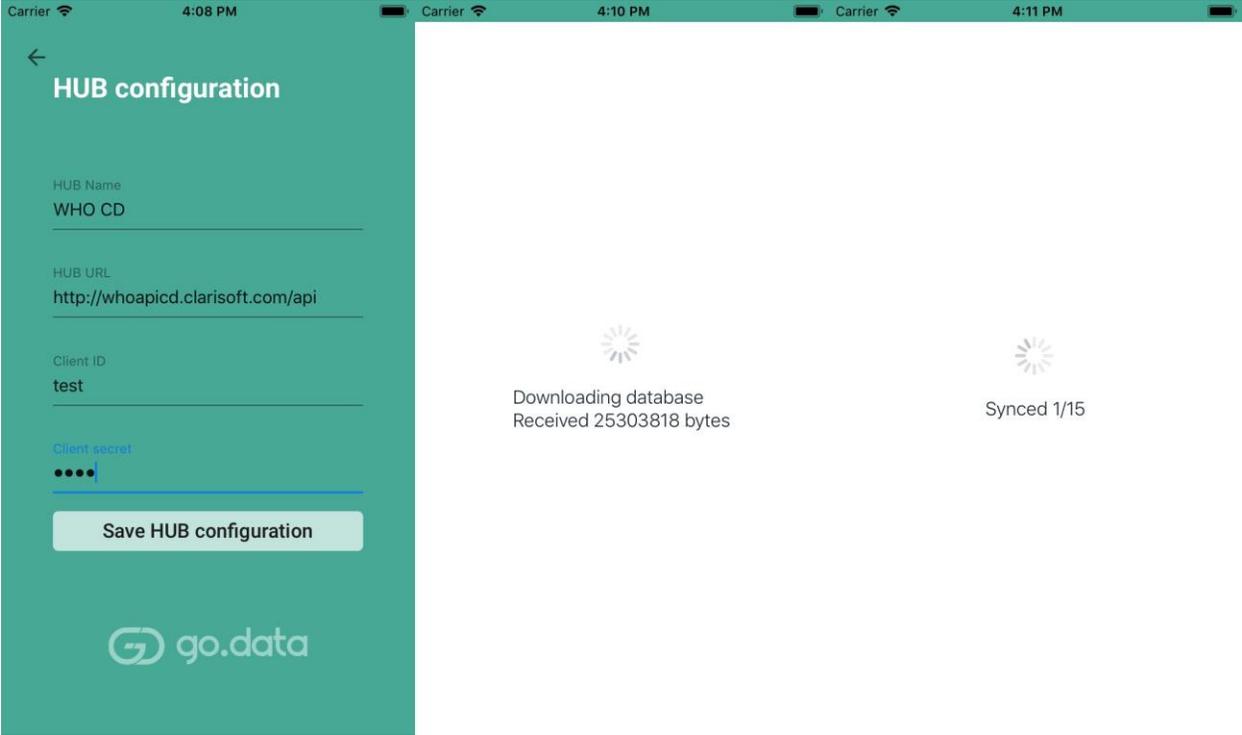


Fig. 2: Hub configuration process example

After the database is downloaded and all the files are synced, the user will be prompted with the login screen.

Synchronize the data with the hub

When the user wants to sync the data with the hub, he must click the Sync manually from the navigation drawer. Once the button is clicked the syncing process will begin and the user must wait until the sync is finished.

A popup will appear when the syncing is finished or an error occurred. If the syncing was successful, the app will reload the data.

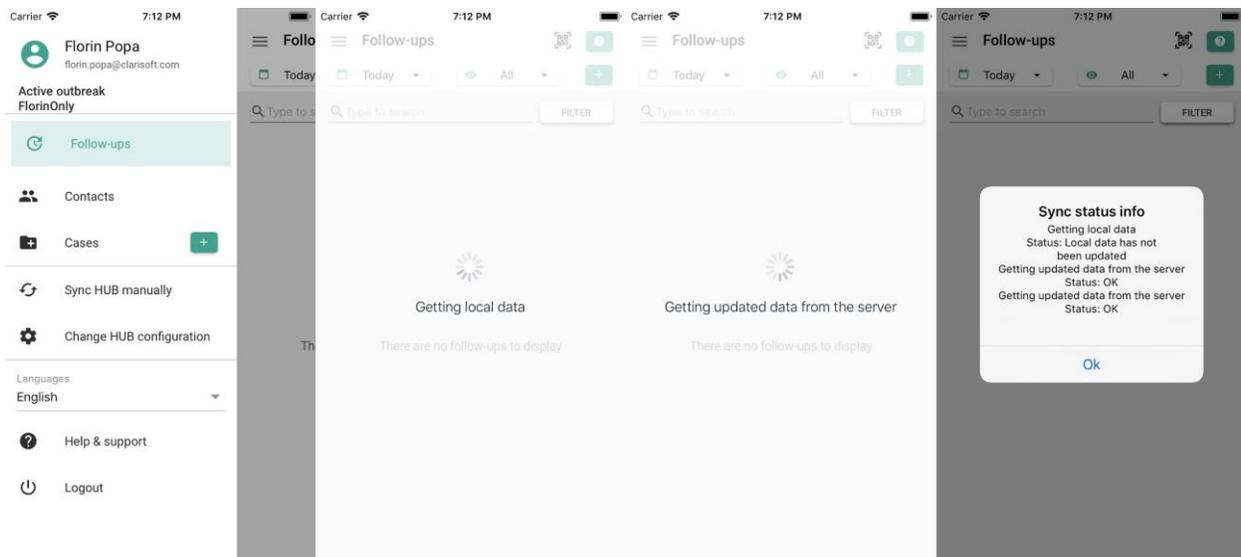


Fig. 3: Sync example

Change hub configuration

The Change hub configuration screen serves three main functions:

- 1) Editing the active hub's credentials
- 2) Adding a new hub
- 3) Making other hubs active

Log in

To log in into the application click into the email field and enter the email address. After this, insert the password data inside the second field, followed by a LOGIN button click. If the credentials are correct, the user will be then redirected to the Follow-ups list screen inside the application. In case the credentials are wrong, an alert will be displayed for the user with a message for this matter. All those can be seen in Fig. 4 below.

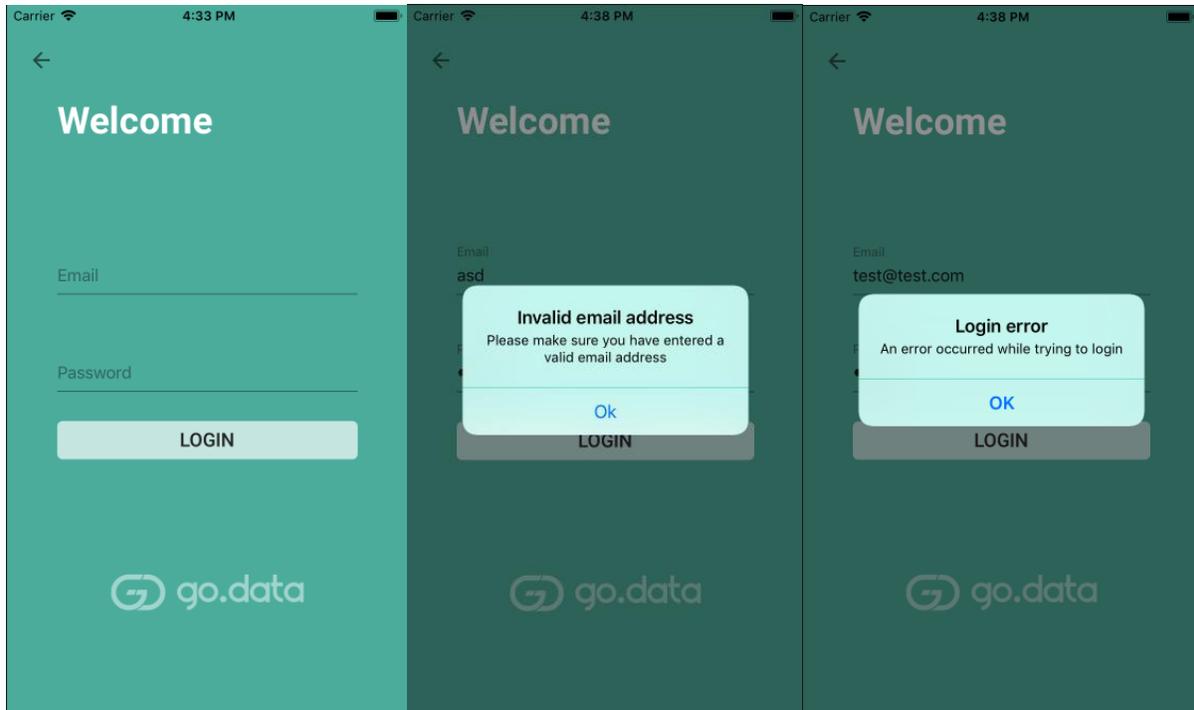


Fig. 4 - Login screen and possible encountered alerts in case credentials are not correct

Navigation drawer

After the user logs in with success, he will be able to navigate on different screens from the navigation drawer that can be access by swiping on the devices screen from left to right, or by clicking on the top-left corner icon formed from three horizontal lines. As it can be seen from Fig. 5 from below, informations displayed here contains the current logged in user and his email. the active outbreak and a list of screens that can be accessed. Also, if any screen title contains an add icon near it, the user can go directly to add new item screen by clicking on this icon. Also, from this navigation drawer the user can sync the hub manually or change its configuration. Another feature consists in changing the language of the application from the dropdown presented in navigation drawer. And of course, the user can log out from here.

Log out

By pressing the log out button from the navigation drawer, the user will log out and he will be redirected to the login screen. In this time, all informations related to that user will be wiped out from the phone memory.

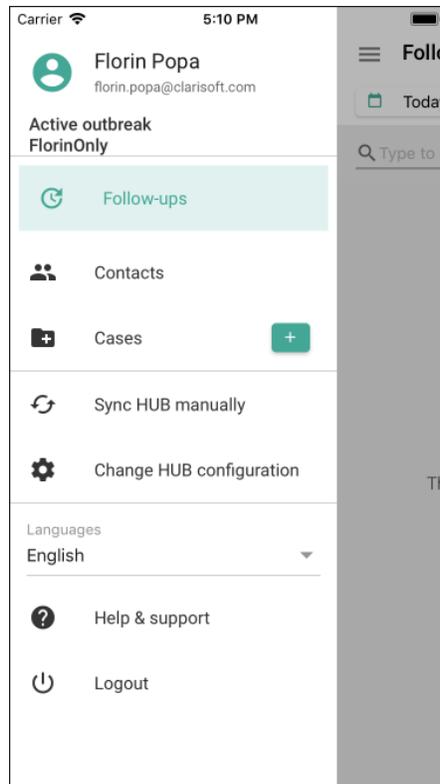


Fig. 5 - Navigation drawer

Follow ups

In the Follow-ups screen (that can be seen in Fig. 6), if there are any follow-ups that match the default filters, they will be displayed under a list form, otherwise the user will be informed with a message about this fact.

This screen contains two main components, the header and the list of follow-ups. The header contains an Icon formed from three horizontal lines that will help the user access the navigation drawer from the left side of the device, the title of current screen and two other icons. The first icon of the two mentioned will open a QR reader screen that will allow user to scan a person QR code and be then redirected to that person information screen. In the same time, the second Icon with a green question mark will open a modal with the help items for the follow-ups list, if there are any.

In the header are also displayed informations about the follow-ups date and status filter followed by the add new follow-up button. The default filter values are the current date for the date filter and all existing statuses. Under those, it will be found the first name and last name search bar and the filter button. This filter button will open another screen that will let user filter and/or sort follow-ups by different criteria. The search bar can be used to type any reference data about the contacts follow-ups first name or last name. The search will activate after pressing the submit button from the keyboard. Just typing text inside the search bar without pressing submit will not activate the search.

The second component of the Follow ups screen represents a list of follow-ups that are matching the active filters. Details about this list can be found below.

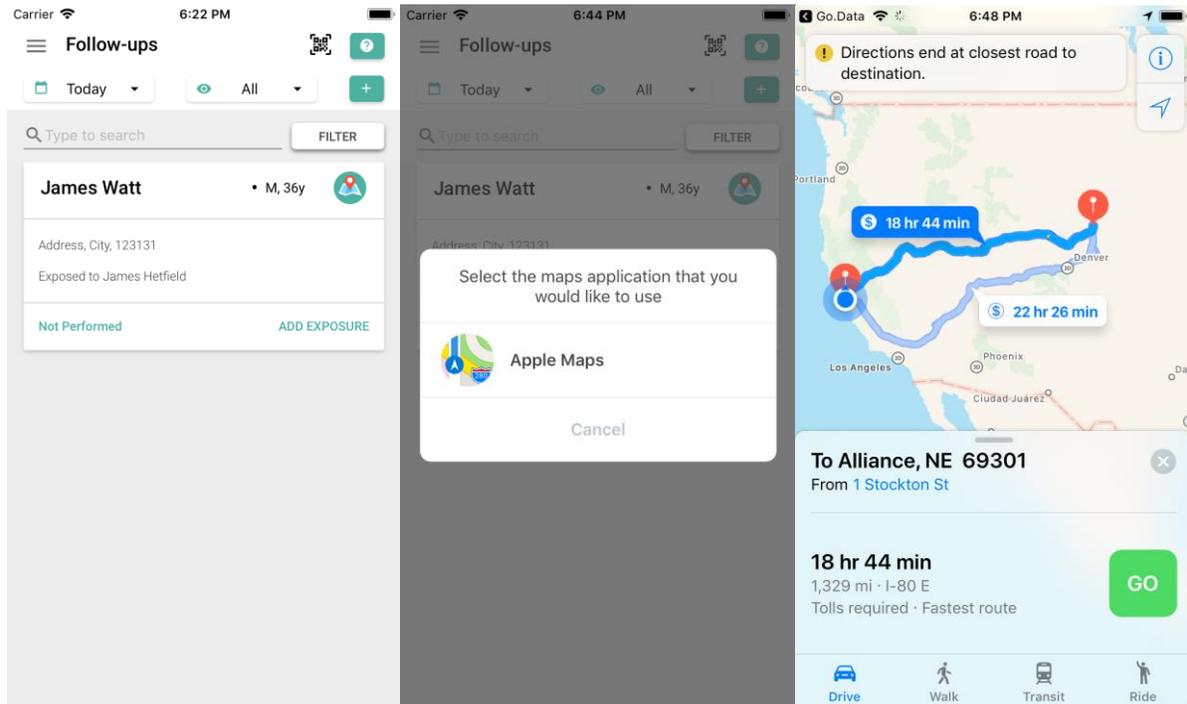


Fig. 6 - Follow-ups screen and steps to access the map screen

Follow up list:

Each follow-up item from this list can be seen under a rectangle format that contains the following information: (this kind of rectangle component can also be seen in Fig. 6 from above).

- The first line includes the contact name written with bold, the initial of the contacts gender and his age in years or months. The gender and age are optional fields so a blank space can sometimes be found instead of this data. On the top-right corner of each follow-up item is a map icon. Clicking on this icon will open a pop-up asking the user if he allows the application to access his location. After this, if the answer is positive, there will appear a pop-up with a list of maps applications that are already installed on the device, and the user should choose one of them. After that, the chosen application will open showing a road between the current location of the user and the current place of residence of the contacts follow-up that was clicked and indications of how to get there. In the same time, if the current place of residence address of that contact has empty latitude and longitude fields, those will automatically be replaced with 0 and on map icon click the destination will appear as (0,0). An example for this can be also seen in Fig. 6 from above
- The second part of follow-ups item component contains the current place of residence address of the contact and a list of cases or events that he was exposed to.
- The last line contains two buttons. The first button inform the user about that follow-ups status (if the status field is set) and clicking on it will open a screen where the user can, depending on

his permissions, to edit or read the follow-up data. The second button will help the user to add a new exposure for the contact and this one will be detailed later in this file.

Follow up information:

Follow-ups information can be inserted or changed in two ways from this screen.

Firstly, the user can add a new follow-ups by clicking the add new item button (the rectangle icon with a white plus on green background). Clicking on this button, will display a modal with two fields. The first one is a search bar for contacts. if the user knows any reference data about the name of the contact that he wants to add the follow-up for, he can type it in this search bar and click submit. Otherwise the user should just click enter in this field, without inserting any data. After submit click, a list of all available contacts will appear under the search contact bar from which any one can be chosen. The second field represents the follow-up date set by default as current date. After completing those two fields the user must press save to insert to new item (this modal can be seen in Fig. 7 from below).

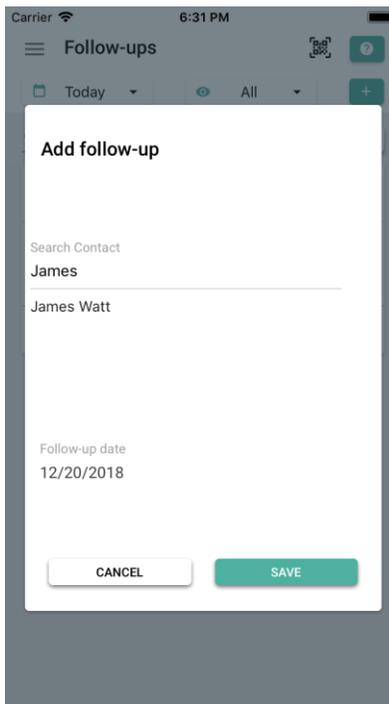


Fig. 7 - Add new follow-up modal

The second one is by editing an existing follow-ups. This will only be possible for follow-ups with date set before or the same as the current date. After clicking on the edit button, a new screen will appear where the user can change, if he has the required permissions, the informations related to follow-up status, and if he is targeted. Other data as date and follow-up contacts usual place of residence address is always be read-only. All those informations can be seen or changed in the first tab of the edit/read screen. On the second tab, the user can complete or change the questionnaire questions. In the same time, on the top of the edit screen, it can be seen the name of contact of which follow-up is edited and near it, is the help items icon clicking on which will redirect the user to help items screen filtered for the add follow-

ups. Also, if the user has the edit permissions, near the help items icon will be a button composed from three vertical dots and if the user clicks on them, a menu will appear from which the user can set the follow-ups status as missed, he can delete the follow-up or he can set the contact as deceased. Both of those tags and the menu from top right corner of the screen can be seen exemplified in the Fig. 8. In the end, if the user wants to save the changes, he can save them by clicking on the save button from the questionnaire tab in edit screen.

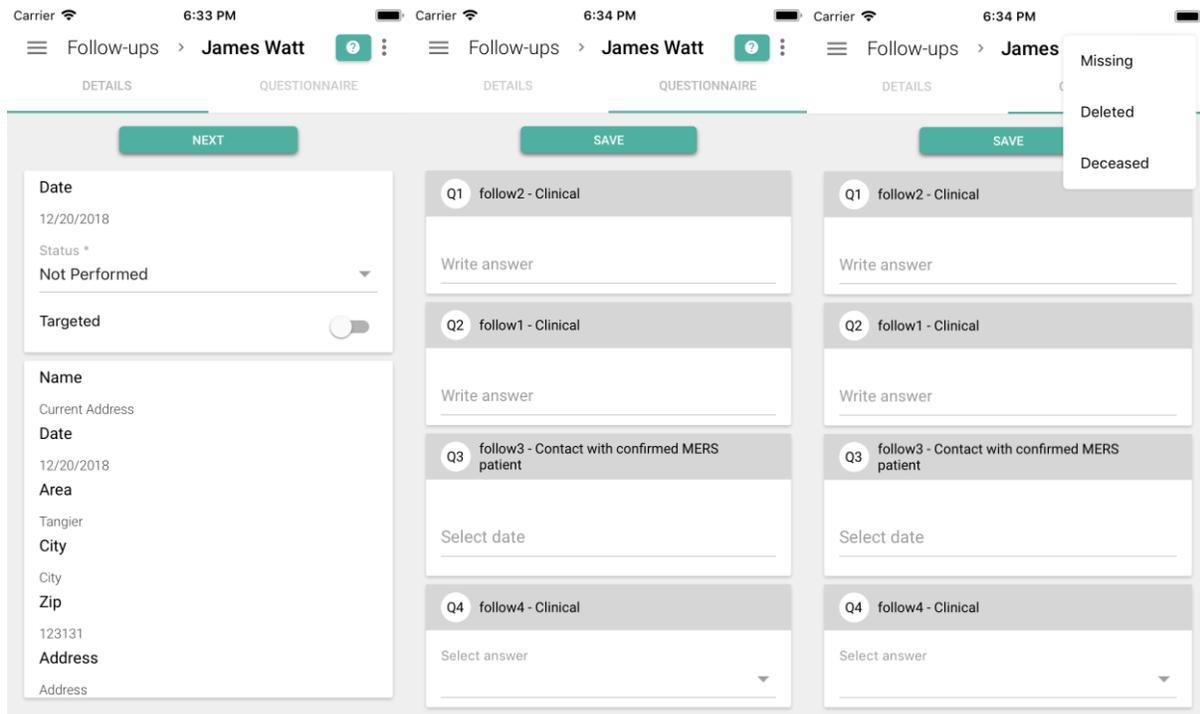


Fig. 8 - Edit existing follow-up fields

Another detail that must be mentioned here is that if there are any changes made inside any edit screen in the application that are not saved, but in the same time the user wants to leave the screen, an alert will be shown to the user prompting him to choose if he wants to remove the changes and leave screen or he wants to remain on the current screen.

Contacts

In the Contacts screen (that can be seen in Fig. 9), if there are any contacts, they will be displayed under a list form, otherwise the user will be informed with a message about this fact.

This screen contains two main components, the header and the list of contacts. The header contains an Icon formed from three horizontal lines that will help the user access the navigation drawer from the left side of the device, the title of current screen and two other icons. The first icon of the two mentioned will open a QR reader screen that will allow user to scan a person QR code and be then redirected to that person information screen. In the same time, the second Icon with a green question mark will open a modal with the help items for the contacts list, if there are any.

Under those, it will be found the first name and last name search bar and the filter button. This filter button will open another screen that will let user filter and/or sort contacts by different criteria. The search bar can be used to type any reference data about the contacts first name or last name. The search will activate after pressing the submit button from the keyboard. Just typing text inside the search bar without pressing submit will not activate the search.

The second component of the Contacts screen represents a list of contacts that are matching the active filters. Details about this list can be found below.

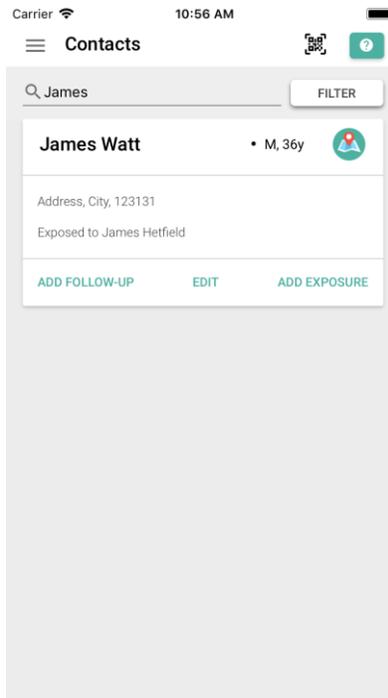


Fig. 9 - Contacts screen

Contact list:

Each contact item from this list can be seen under a rectangle format that contains the following information: (this kind of rectangle component can also be seen in Fig. 9 from above).

- The first line includes the contact name written with bold, the initial of the contacts gender and his age in years or months. The gender and age are optional fields so a blank space can sometimes be found instead of this data. On the top-right corner of each follow-up item is a map icon. Clicking on this icon will open a pop-up asking the user if he allows the application to access his location. After this, if the answer is positive, there will appear a pop-up with a list of maps applications that are already installed on the device, and the user should choose one of them. After that, the chosen application will open showing a road between the current location of the user and the current place of residence of the contacts follow-up that was clicked and indications of how to get there. In the same time, if the current place of residence address of that contact has empty latitude and

longitude fields, those will automatically be replaced with 0 and on map icon click the destination will appear as (0,0). This feature is the same as the one from the follow-ups screen and an example of maps access can be seen above in Fig. 6.

- The second part of contacts item component contains the current place of residence address of the contact and a list of cases or events that he was exposed to.
- The last line contains three buttons. The first button can be used to add a new follow-ups for that contact. Clicking on it will take user to the add new follow-up screen that was presented above as the edit screen from the follow-ups screen. The second button will permit the user to edit or read the contacts informations (depends on user permissions) and the last one will help the user to add a new exposure for the contact and this one will be detailed later in this file. Of course, the appearance of all those three buttons will change according to user permissions.

Edit a contact

If the user has permissions to write or read contacts informations, an Edit button will appear on the screen for each contact item in the list. Clicking on this button will take the user to the edit screen where each field will be editable if the user has the write permissions. Otherwise, if the user has just reading permissions fields will not appear as editable.

The edit screen contains on the first line the Icon with three horizontal lines that opens the navigation drawer, the contact that is edited name, and two icons. The first icon which is the help items icon clicking on which will redirect the user to help items screen filtered for the edit or view contact informations, depending on the user current action of edit or read. Also, if the user has the edit permissions, near the help items icon will be a button composed from three vertical dots and if the user clicks on them, a menu will appear from which the user can delete the contact or he can set him as deceased.

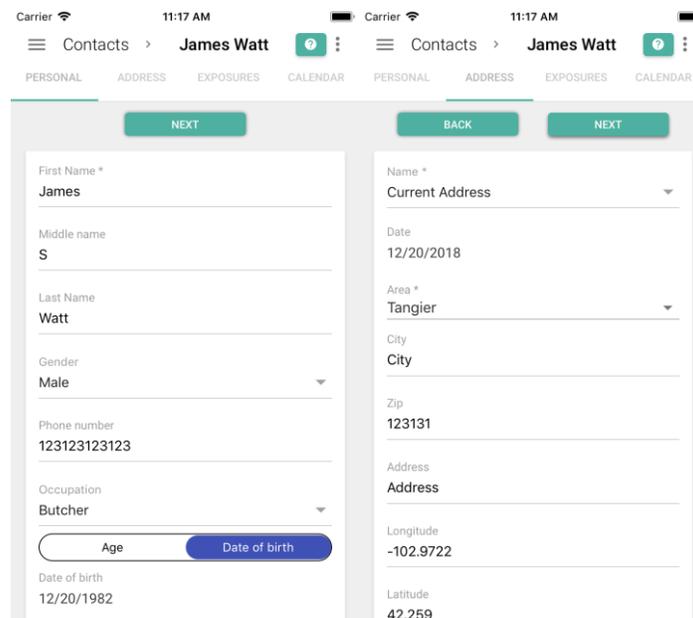


Fig. 10 - Contact edit screen Personal and Address tabs

After that, the edit screen is divided into four tabs. The first tab is the one with personal information of the contact. Here, data that can be changed consists of fields as first/middle/last name, gender, age, phone number, occupation, age, date of reporting the contact and if the date of reporting is approximate and others like risk level and reason. The age can be added in years or months by the user or it can be set as the date of birth and the age will be calculated automatically. It must be mentioned that the required fields all around the application are displayed with a * near its label. The next tab is the addresses one. From here, the user can add contact addresses and there must be at least one address set as the current one. (those two first tabs can be seen as an example in Fig. 10 above).

The next tab is the one where the exposures can be added, edited or deleted and they can be seen in a list format. Each exposure in this tab will display information as:

- Case or event name on the first line written with bold
- The date of last contact
- The certainty level
- Actions as edit or delete exposure (if the user has the required permissions)

The last tab is the calendar one and here information about contact follow-ups are read only and displayed filtered per day. (Those two last tabs from edit contact screen are presented in Fig. 11).

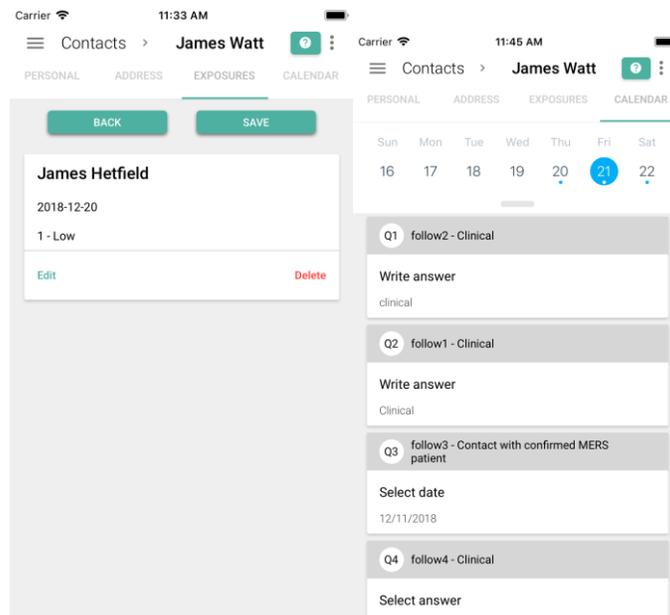


Fig. 11 - Contact edit screen Exposures and Calendar tabs

If the user wants to save the changes, he can save them by clicking on the save button from the exposure tab in edit screen.

Exposures add / edit:

The add exposure button can be seen on both the follow-ups and contacts screen for each list item. If this button is clicked it will open a screen where the user can add a new exposure for that contact. In this screen, the user can set an exposure completing fields as case or event to which the contact was exposed, the last date of contact, if this date is estimated, certainty level, exposure type, frequency and duration, the relation between those two, cluster information and a comment if necessary. After that

Save button must be pressed in order to save the new created exposure for contact. In this time, in the top-right corner of this page an icon for help items will be present, clicking on which will take the user to a help items screen filtered automatically for edit or add exposure screen. Fig. 12 displays an example of this page.

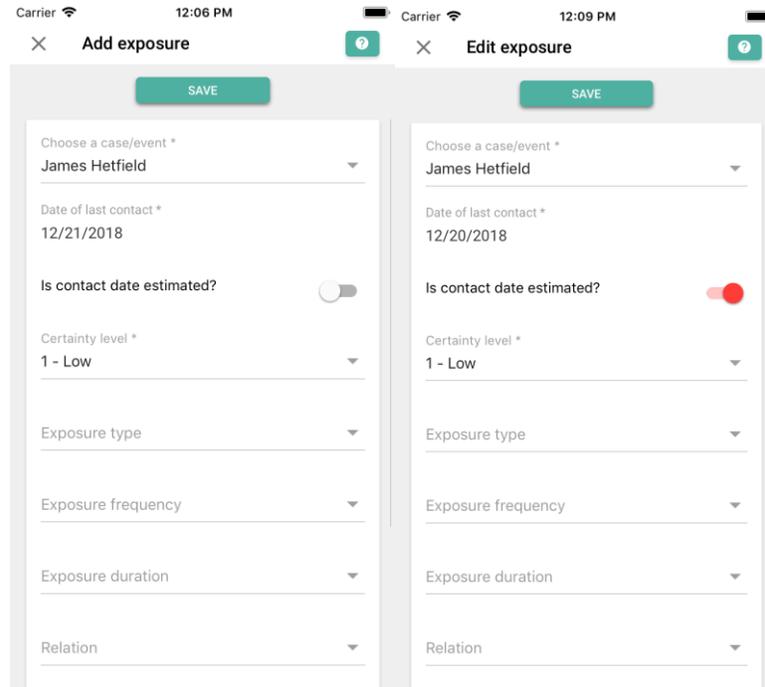


Fig. 12 - Add and edit exposure screens

On the other side an exposure can be edited from the exposure tab of the edit screen of a contact. The edit exposure screen can be seen in Fig. 12 from above.

Cases

In the Cases screen (that can be seen in Fig. 13), if there are any cases, they will be displayed under a list form, otherwise the user will be informed with a message about this fact.

This screen contains two main components, the header and the list of cases. The header contains an Icon formed from three horizontal lines that will help the user access the navigation drawer from the left side of the device, the title of current screen and three other icons. The first icon of the three mentioned will open a QR reader screen that will allow user to scan a person QR code and be then redirected to that person information screen. In the same time, the second Icon with a green question mark will open a modal with the help items for the contacts list, if there are any. And the last icon will permit user to add a new Case.

Under those, it will be found the first name and last name search bar and the filter button. This filter button will open another screen that will let user filter and/or sort cases by different criteria. The search bar can be used to type any reference data about the cases first name or last name. The search will

activate after pressing the submit button from the keyboard. Just typing text inside the search bar without pressing submit will not activate the search.

The second component of the Cases screen represents a list of cases that are matching the active filters. Details about this list can be found below.

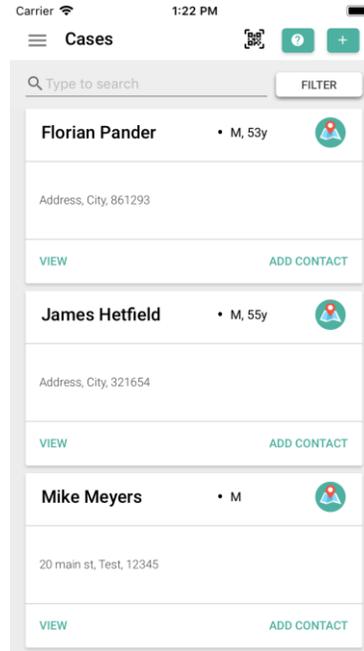


Fig. 13 - Cases screen

Case list

Each case item from this list can be seen under a rectangle format that contains the following information: (this kind of rectangle component can also be seen in Fig. 13 from above).

- The first line includes the case name written with bold, the initial of the case gender and his age in years or months. The gender and age are optional fields so a blank space can sometimes be found instead of this data. On the top-right corner of each follow-up item is a map icon. Clicking on this icon will open a pop-up asking the user if he allows the application to access his location. After this, if the answer is positive, there will appear a pop-up with a list of maps applications that are already installed on the device, and the user should choose one of them. After that, the chosen application will open showing a road between the current location of the user and the current place of residence of the case that was clicked and indications of how to get there. In the same time, if the current place of residence address of that case has empty latitude and longitude fields, those will automatically be replaced with 0 and on map icon click the destination will appear as (0,0). This feature is the same as the one from the contacts and follow-ups screens and an example of maps access can be seen above in Fig. 6.
- The second part of cases item component contains the current place of residence address of the case.

- The last line contains two buttons. The first button can be used to view the case details. The second button will permit the user to add a new contact for this case. If the user clicks here, a screen will appear with the same format as the one for editing a contact, but without the calendar tab. Another detail that must be said is that in the exposure tab when adding a contact from here, all the added exposures will have selected by default the case from which the add button was clicked.

Add a case

If the user has permissions to write cases informations, an add button will appear on the screen on right-top corner. Clicking on this button will take the user to the add screen where each field will be editable. Otherwise, if the user has just reading permissions the button will not be visible.

The add screen contains on the first line the icon with three horizontal lines that opens the navigation drawer, the name of adding a case action, and two icons. The first icon which is the help items icon clicking on which will redirect the user to help items screen filtered for the add case informations.

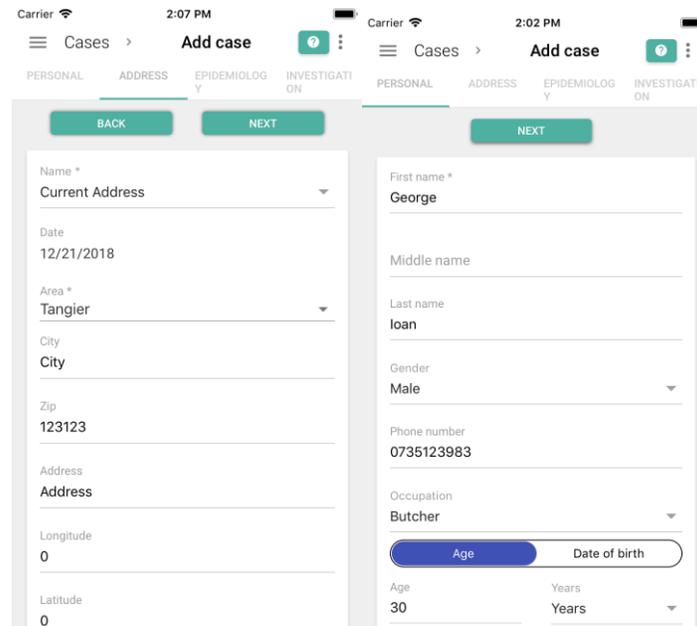


Fig. 14 - Add case screen Personal and Address tabs

After that, the add screen is divided into four tabs. The first tab is the one with personal informations of the case. Here, data that can be changed consists of fields as first/middle/last name, gender, age, phone number, occupation, age, risk level and reason, date of reporting, if the date of reporting is approximate and if the transfer to treatment unit was refused. The age can be added in years or months by the user or it can be set as the date of birth and the age will be calculated automatically. It must be mentioned that the required fields all around the application are displayed with a * near its label. Also, from here the user can add documents to the case. Each document has two fields: the document type and number. The next tab is the addresses one. From here, the user can add cases addresses and there must be at least one address set as the current one. (those two first tabs can be seen as an example in Fig. 14).

The next two tabs are for epidemiology and investigation. From the first one the user can insert details as: classification, date of onset, if the date of onset is approximate, date of becoming case, date of infection, the outcome and its date, if the case is deceased alongside deceased date and if the burial was performed safely. Also, a case can have one or many dates of hospitalization or isolation and they can be added from this tab. On the last screen will be present a questionnaire with different questions for the case medical details. Those two last tabs can be seen in Fig. 15.

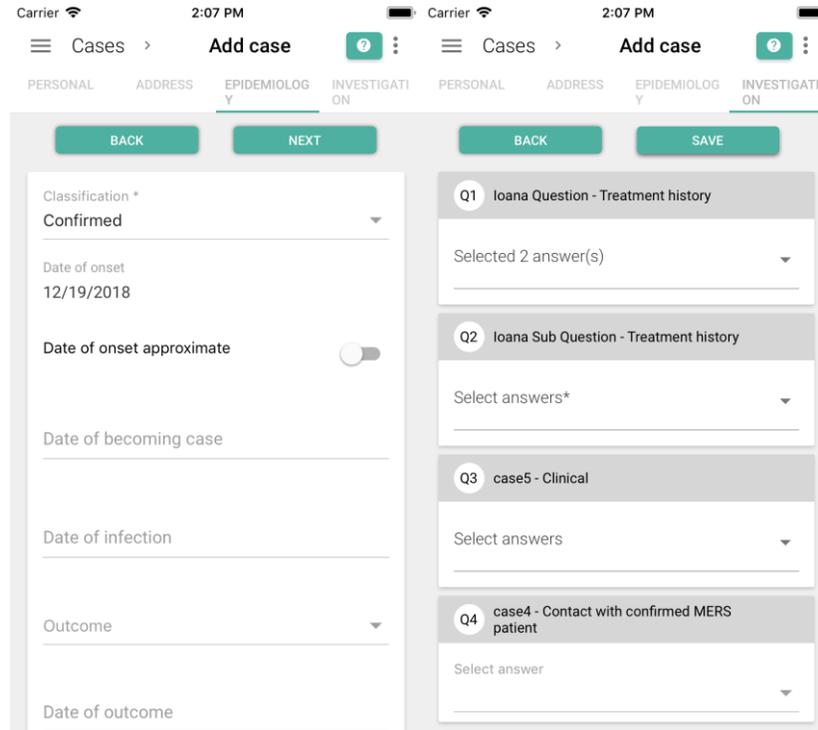


Fig. 15 - Add case screen Epidemiology and Investigation tabs

If the user wants to save the changes, he can save them by clicking on the save button from the investigation tab in edit screen.

Edit a case

The view screen has the same format as the one for adding a new case but the informations are read only. However, if the user has the required permissions and he wants to change any information from here, he can press the edit button that is present in any of the tabs. After clicking on Edit button, the fields will become editable. In the end the user can save the changes or he can cancel them. On the right-top corner it will be found the icon with three vertical dots from where the case can be deleted. An example with the edit screen is in Fig. 16 below.

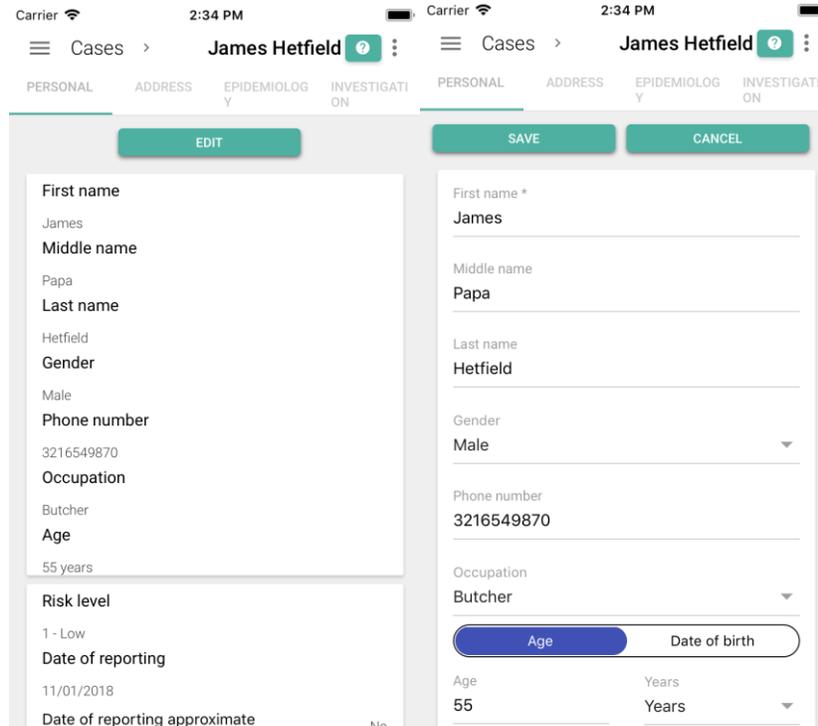


Fig. 16 - Edit case screen Personal tab

Dates validations add/edit

Some of the fields that are completed with a date from the add or edit screens could have some validations that must be respected in order to permit user to change them. Those dates validations are explained below.

- Cases screen:
 - date of birthday
 - must be set the same or before the current date
 - date of onset
 - must be set the same or before the current date
 - must be set the same or before the deceased date
 - date of reporting
 - must be set the same or before the current date
 - must be set the same or before the deceased date
 - date of becoming a case
 - must be set the same or before the current date
 - date of infection
 - must be set the same or before the current date
 - must be set the same or before the deceased date
 - must be set the same or before the date of onset

- date of outcome
 - must be set the same or before the current date
- date of deceased
 - must be set the same or before the current date
 - must be set the same or after the date of reporting
 - must be set the same or after the date of infection
 - must be set the same or after the date of onset
- hospitalization dates
 - start hospitalization date must be set the same or before the end of hospitalization date
- isolation dates
 - start isolation date must be set the same or before the end of isolation date
 - date of isolation must not be before date of onset

- Contacts screen
 - date of birthday
 - must be set the same or before the current date
 - date of reporting
 - must be set the same or before the current date

- Exposure screen
 - date of last contact
 - must be set the same or before the current date

- Address tab for cases and contacts
 - address date
 - must be set the same or before the current date

Help

In the Help screen (that can be seen in Fig. 17), if there are any help items, they will be displayed under a list form, otherwise the user will be informed with a message about this fact.

This screen contains two main components, the header and the list of help items. The header contains an Icon formed from three horizontal lines that will help the user access the navigation drawer from the left side of the device and the title of current screen.

Under those, it will be found the title search bar and the filter button. This filter button will open another screen that will let user filter and/or sort help items by different criteria. The search bar can be used to type any reference data about the help items title. The search will activate after pressing the submit button from the keyboard. Just typing text inside the search bar without pressing submit will not activate the search.

The second component of the Help screen represents a list of items that are matching the active filters. Details about this list can be found below.

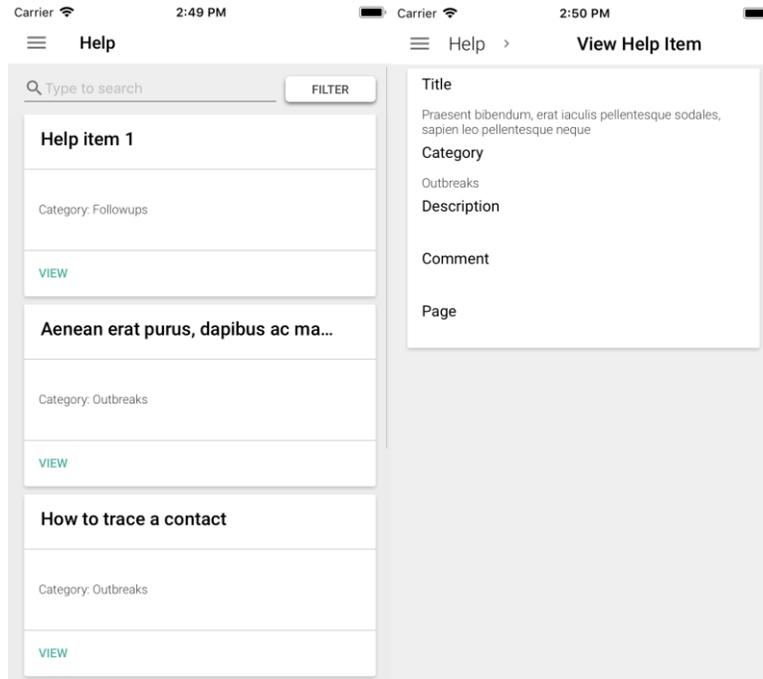


Fig 17 - Help screen and view help item screen

Help items list:

Each help item from this list can be seen under a rectangle format that contains the following information: (this kind of rectangle component can also be seen in Fig. 17 from above).

- The first line includes the help item title written with bold
- The second part of help item component represents the category that it is part of.
- The last line contains one button clicking on which will permit user to view help items details, as it can be seen in Fig. 17.

In some screens of the application, an icon with a question mark can be seen. Clicking on that icon will make the help screen appear as a modal and all items displayed for help on that modal will be automatically filtered for the page from which the help icon button was pressed.

Filters and sort

Each screen presented above from the mobile application also has a filter button. If the user clicks on that button he will be taken to a filter screen divided in two tabs, one for sort and one for filter.

If the user wants to remove the filters from a specific field he must enter in this filters screen and press the X button from the top-left corner of the device. The sort rules are applied to the items but they are not saved so they must be entered again if the user leaves the on the filter screen.

Filter tab:

The filter tab fields differ more or less depending on which screen the user wants to filter to data. In the follow-ups and contacts screens the user can filter informations by gender (male or female), age range that can vary from 0 to 150 years and the location of the addresses. On the other side, on cases screen, besides fields presented already, there is an extra filter rule by Classification of the case. Help screen also have a filter feature. Here help items can be filtered by their category.

After the user chooses the values for each filter field that he wants, he must press the button from the bottom of the page in order to apply those filters. An example of each filter screen can be seen in Fig. 18.

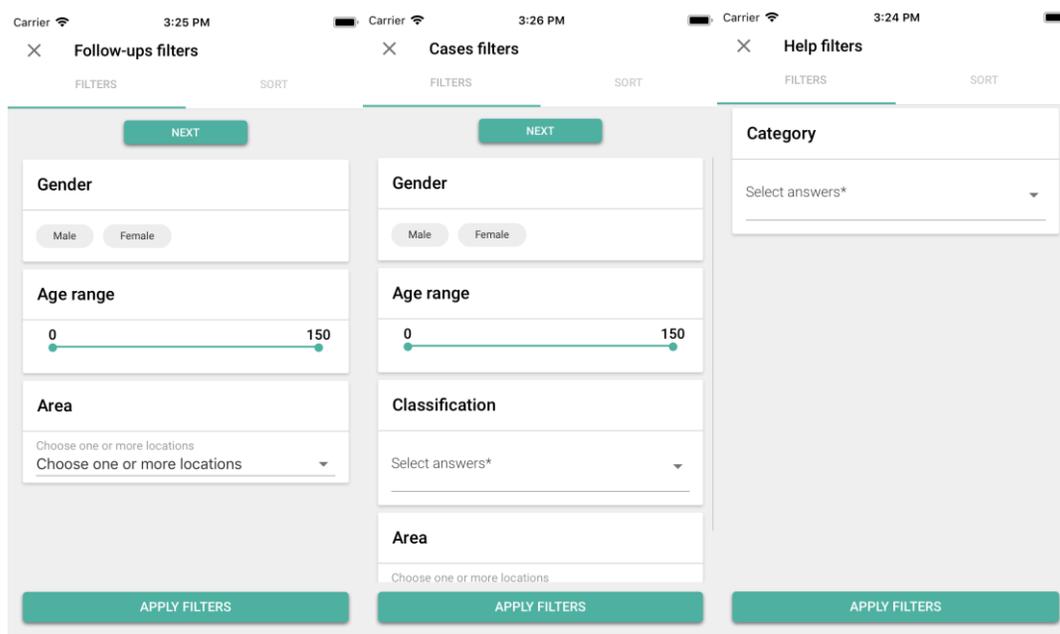


Fig. 18 - Filter tab from filter screens for Follow-ups, Cases and Help items

Sort tab:

In this tab, the user can add one or more sort rules. After adding a sort rule, the user can change the sort criteria and order of that rule. The follow-ups, contacts and cases can be sorted by first and last name while the help items can be sorted by title or the category that they are part of. The sort criterias are applied in the same way as filters are, by clicking on the button from the bottom of the page. An example of each sort screen can be seen in Fig. 19.

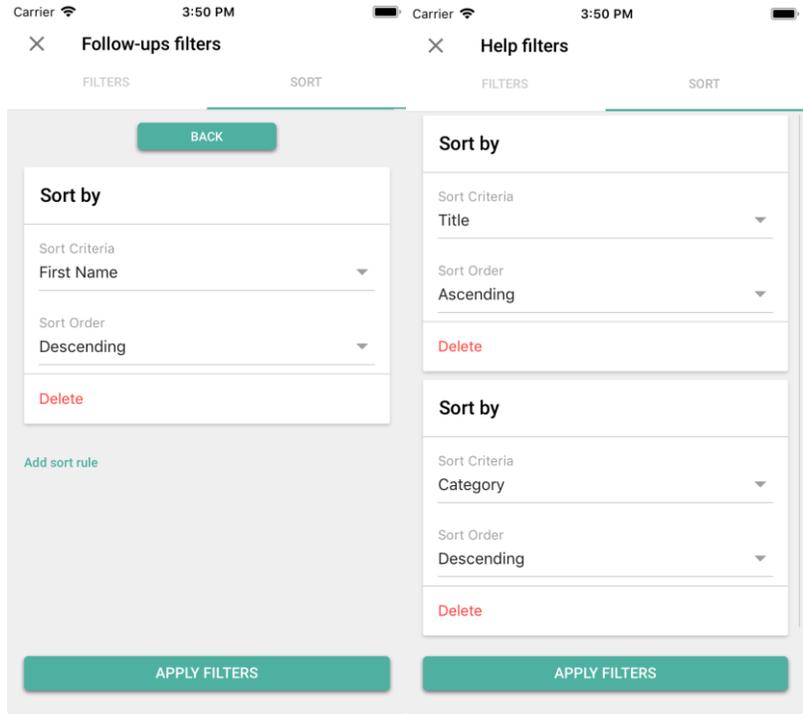


Fig. 19 - Sort tabs from filter screen for follow-ups and help items