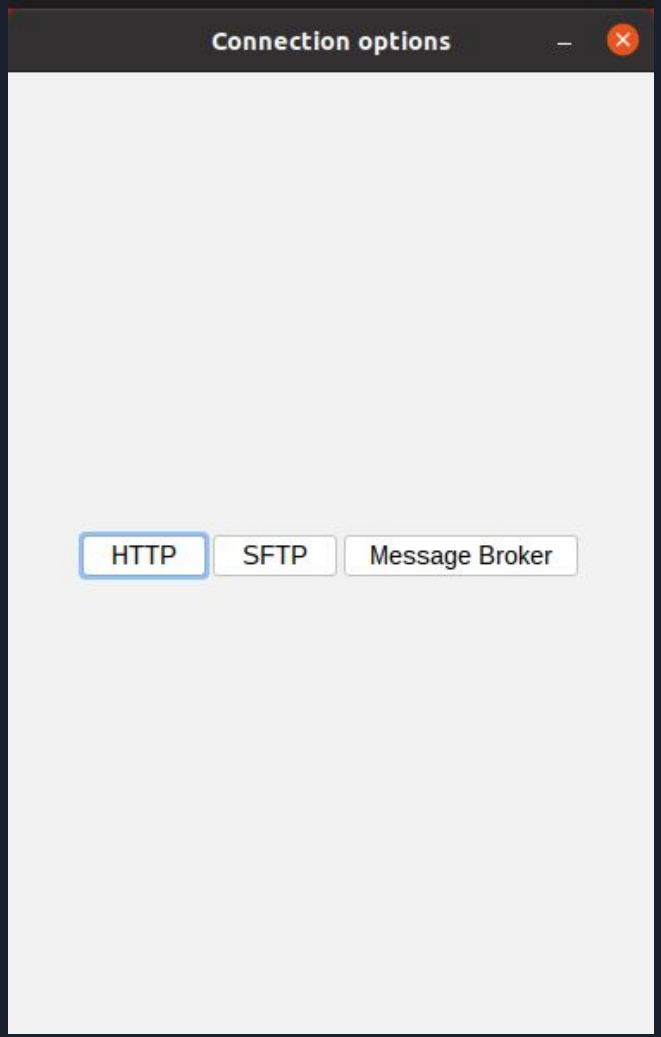
Healthcare Data Simulators

Summary for the client - Beta Release

Short walkthrough

When you run the app you can choose the protocol that you want to use

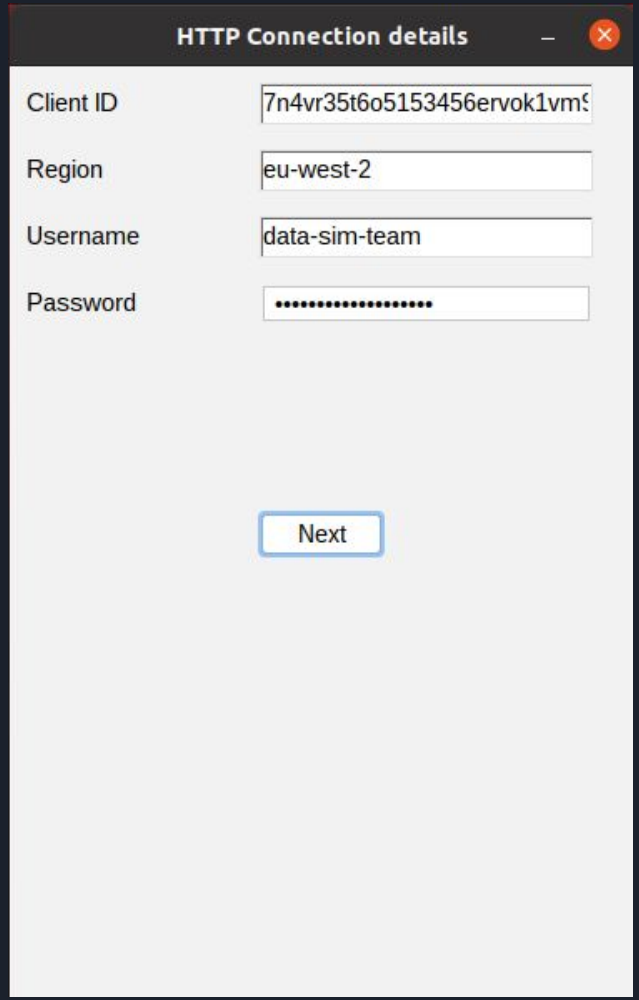


Short walkthrough

If HTTP protocol is chosen you will have to enter the connection details.

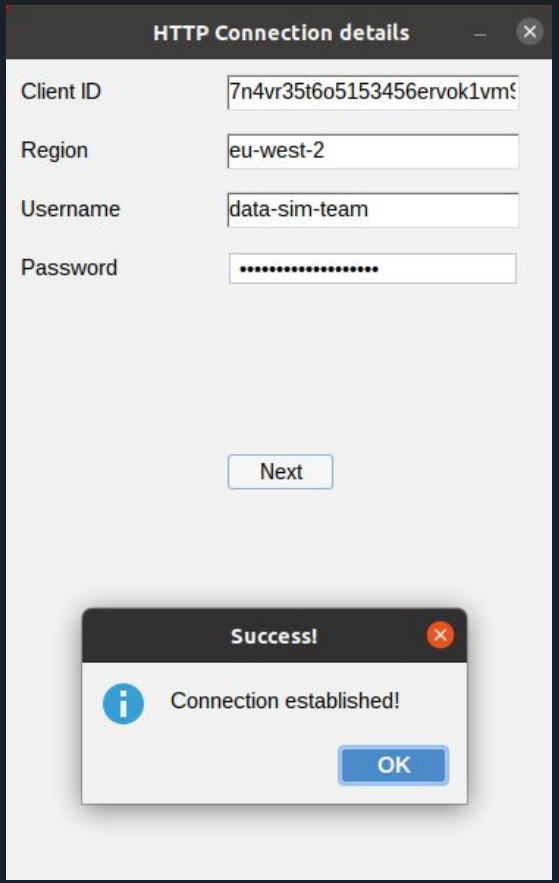
By default here are the details are the connection details provided from the Data Lake Team.

By clicking next it will request a token from AWS Cognito in order to establish the connection.



Short walkthrough

Token has been received so we can start sending POST requests to the server



Short walkthrough

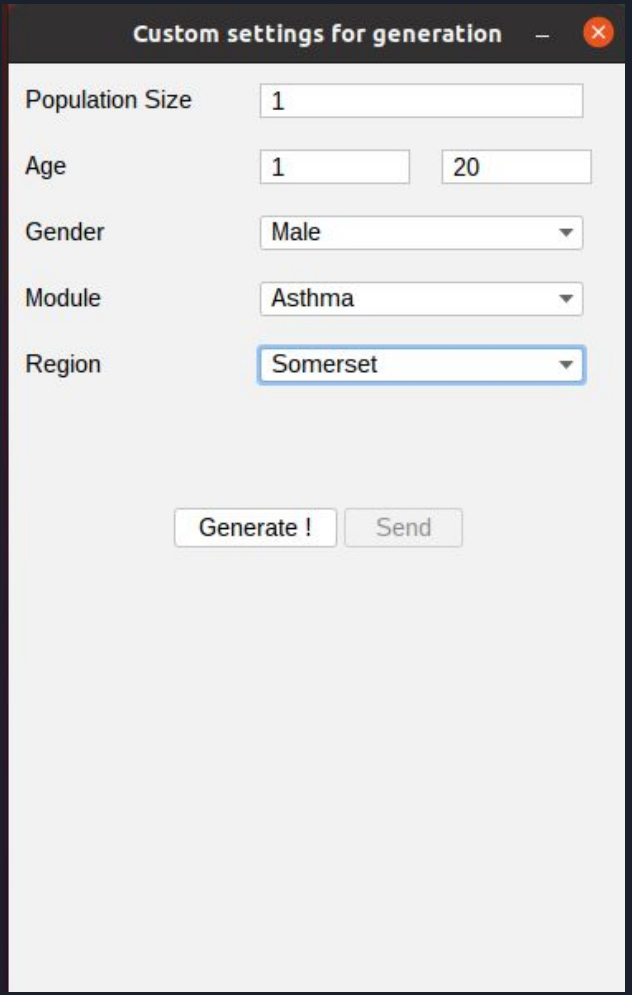
We can choose now between the following options:

- Generate Data = use Synthea Patient Generator
- Convertor HL7 = convert local HL7 V2.x files to FHIR
- Upload File = send any kind of data (e.g. pdf, png, any local stored file)

Short walkthrough

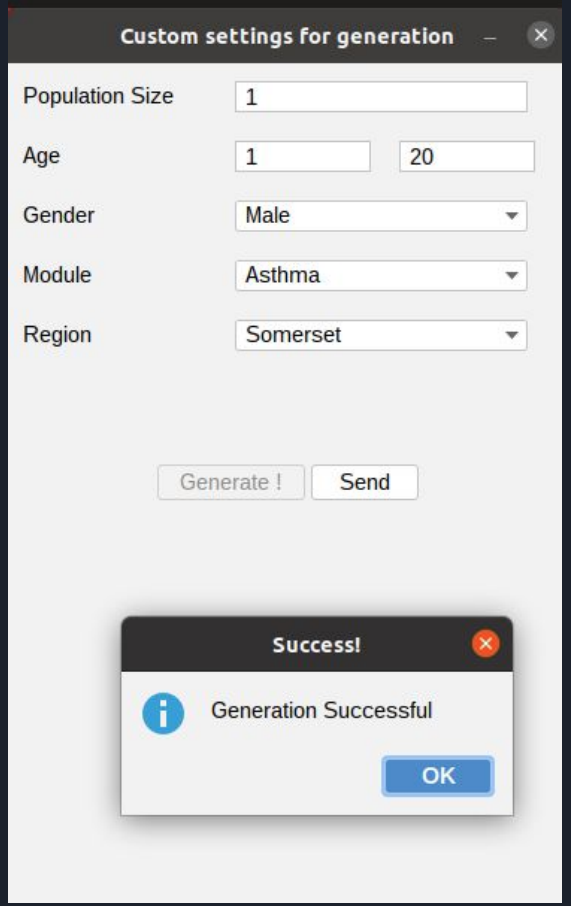
In this example we opted for “Generate Data”.

You can input your own configuration.



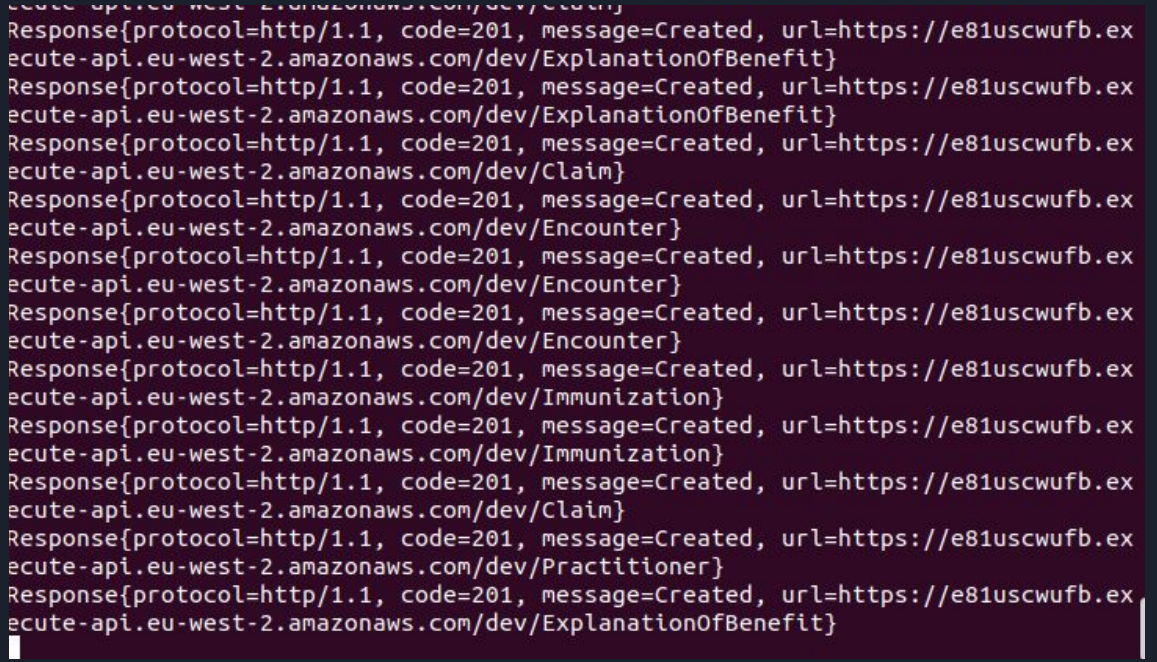
Short walkthrough

“Under the hood” the data has been generated and is ready to be sent using the chosen protocol.



Short walkthrough

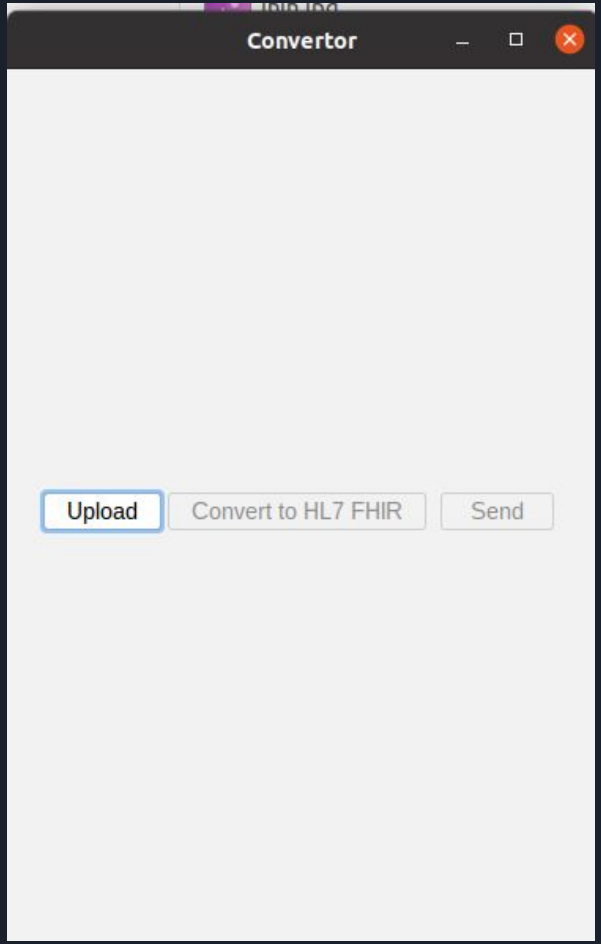
Here is a picture of my terminal where the application printed out the response messages which confirms that the data has been successfully delivered.



Short walkthrough

Here is a screenshot from the GUI of the Convertor.

You need to upload the data, then you can convert it to FHIR and send it.



Installation requirements

You need have to install on your local machine the following:

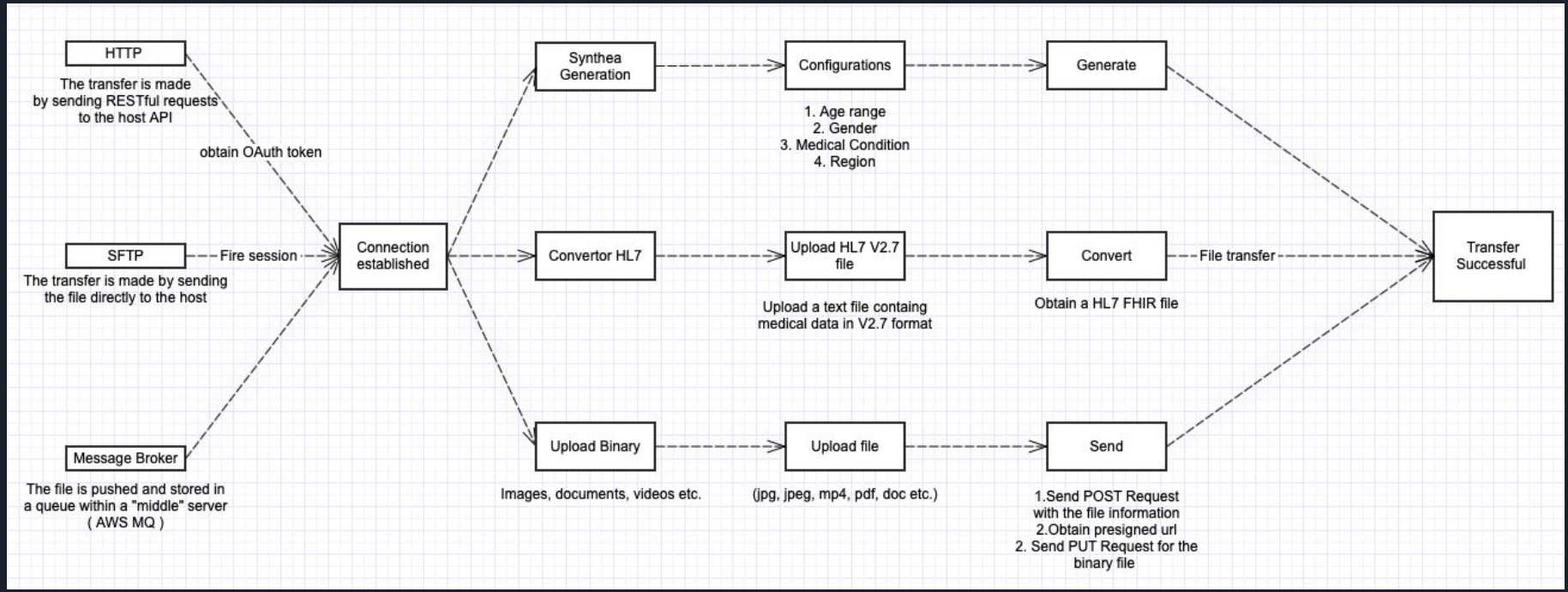
1. Java 11
2. Python 3
3. boto3 module for Python `pip install boto3`

Installation guide

The installation guide can be found on our repository page:

Click here to access our github repository

Architecture - WorkFlow + Process Details



About the *.jar files dependencies

We made use of SyntheaTM Patient Generator and synthea-international to make a synthetic population generator which includes UK population. We have deployed an executable jar files which download link can be found on our repository page.

We modified an open-source project which converts HL7 V2.7 into FHIR : github repository. The project was modified and redeployed in order to make it as portable and as efficient as possible to be easily integrated in our project. The deployed jar can be found on our repository page.