**VACCINE ADMINISTRATION TRACKER REPORT**

1. **INTRODUCTON**

The Government of Uganda seeks to track administration of COVID-19 vaccines among the citizens. This follows a target of having at least 90% of the population vaccinated for most of the activities to return to normal. The number of dozes which are received in the country are registered in the system. After which, they are distributed amongst the 5 approved health centers based on the need.

After receiving the vaccines, the health centers administer the vaccines to people in need and enter the details of each person in the system. These details include the NIN, name, and health center, date of administration, batch number and vaccine administered.

1. **DEVELOPMENT TEAM**

* Kibalama Timothy 19/U/8373/EVE
* Ddamba Mahad 19/U/8192/EVE
* Rashidah Magezi Tumukunde 19/U/8741/EVE
* Mwesigwa Joshua 19/U/8883/EVE
* Asiimwe Maria 19/U/8980/EVE

Github repo link: https://github.com/BSSE-GROUP-13-RECESS/org.git

1. **TOOLS AND SOFTWARES USED IN DEVELOPMENT**
2. **Apache Netbeans and Intellij**

These software served as the IDEs for development and debugging during the system development.

1. **Glassfish and Tomcat**

These software extended server capabilities to the development computers that were used to develop the system during the development process.

1. **Java Development Kit**

This tool enabled us compile the written project.

1. **SYSTEM MODULES**
2. **Vaccine constructed by Mwesigwa Joshua**

* Performs registration of vaccine types and their prescription.
* Performs registration of vaccines received.
* Responsible for showing the vaccine inventory status.
* Distributes the dozes to the health centers.
* Provides a report about the available vaccines in all health centers that enable the main administrator to distribute the new vaccines.

1. **Administrator performed by Kibalama timothy**

* Performs registration and authentication of users. Patients register in order to book and see all emails from the application. Also, administrators (application administrator and health center administrators) login to view overall application data and health center data respectively.
* Sends email to health center administer on distribution of vaccines.
* Generates emails to patients a day before their vaccination date.
* Generates a report to the main administrator showing the number of patients that have registered into the application to assess whether more resources to handle requests on the server are needed.

1. **Health constructed by Rashidah magezi**

* Performs registration and updates of health center information.
* Performs monthly needs assessment for the vaccines per health center.

1. **Vac\_administration constructed by Asiimwe Maria**

* Performs the registration of those that take the vaccines.
* Calculates how far to hit the vaccination target.
* Responsible for certificate access and viewing.
* Provides a report showing how many patients have been vaccinated at a particular health center to the health center admin.

1. **Booking constructed by Ddamba Mahad**

* Performs booking of vaccination time and place preference.
* Provides advisories on where to go for vaccination.
* Provides the booking report to the patient.

1. **DATABASE SCHEMAS AND STRUCTURE**

admin (

"id" INTEGER NOT NULL UNIQUE,

"name" TEXT NOT NULL,

"email" TEXT NOT NULL UNIQUE,

"password" TEXT NOT NULL,

PRIMARY KEY("id" AUTOINCREMENT)

)

booking (

"id" INTEGER NOT NULL UNIQUE,

"centre\_id" INTEGER NOT NULL,

"patient\_id" INTEGER NOT NULL,

"date" TEXT NOT NULL,

"time" TEXT NOT NULL,

PRIMARY KEY("id" AUTOINCREMENT),

FOREIGN KEY("centre\_id") REFERENCES "health\_centre"("id"),

FOREIGN KEY("patient\_id") REFERENCES "patient"("id")

)

centre\_dozes (

"id" INTEGER NOT NULL UNIQUE,

"doze\_id" INTEGER NOT NULL,

"centre\_id" INTEGER NOT NULL,

"quantity" INTEGER NOT NULL DEFAULT 0,

PRIMARY KEY("id" AUTOINCREMENT),

FOREIGN KEY("doze\_id") REFERENCES "dozes"("id"),

FOREIGN KEY("centre\_id") REFERENCES "health\_centre"("id")

)

certificate (

"id" INTEGER NOT NULL UNIQUE,

"vaccinated\_id" INTEGER NOT NULL,

"next\_date" TEXT,

PRIMARY KEY("id" AUTOINCREMENT),

FOREIGN KEY("vaccinated\_id") REFERENCES "vaccinated\_patient"("id")

)

dozes (

"id" INTEGER NOT NULL UNIQUE,

"vaccine\_id" INTEGER NOT NULL,

"quantity" INTEGER NOT NULL,

"batch\_number" INTEGER NOT NULL,

"arrival\_date" TEXT NOT NULL,

"distributed" INTEGER NOT NULL DEFAULT 0,

PRIMARY KEY("id" AUTOINCREMENT),

FOREIGN KEY("vaccine\_id") REFERENCES "dozes"("id")

)

email (

"id" INTEGER NOT NULL UNIQUE,

"email" TEXT NOT NULL,

"message" TEXT NOT NULL,

PRIMARY KEY("id" AUTOINCREMENT)

)

health\_centre (

"id" INTEGER NOT NULL UNIQUE,

"name" TEXT NOT NULL UNIQUE,

"center\_id" TEXT NOT NULL,

PRIMARY KEY("id" AUTOINCREMENT)

)

patient (

"id" INTEGER NOT NULL UNIQUE,

"name" TEXT NOT NULL,

"email" TEXT NOT NULL UNIQUE,

"password" TEXT NOT NULL,

PRIMARY KEY("id" AUTOINCREMENT)

)

vaccinated\_patient (

"id" INTEGER NOT NULL UNIQUE,

"patient\_name" TEXT NOT NULL,

"doze\_id" INTEGER NOT NULL,

"NIN" TEXT NOT NULL UNIQUE,

"date" TEXT NOT NULL,

PRIMARY KEY("id" AUTOINCREMENT),

FOREIGN KEY("doze\_id") REFERENCES "centre\_dozes"("id")

)

vaccine (

"id" INTEGER NOT NULL UNIQUE,

"name" TEXT NOT NULL UNIQUE,

"required\_shots" INTEGER NOT NULL DEFAULT 1,

"next\_doze\_time" INTEGER NOT NULL DEFAULT 0,

PRIMARY KEY("id" AUTOINCREMENT)

)

visited\_patients (

"id" INTEGER NOT NULL UNIQUE,

"centre\_id" INTEGER NOT NULL,

"number" INTEGER NOT NULL DEFAULT 0,

"date" TEXT NOT NULL,

PRIMARY KEY("id" AUTOINCREMENT),

FOREIGN KEY("centre\_id") REFERENCES "health\_centre"("id")

)