IDSw DDL

```
CREATE TABLE diseases(
IDdisease INTEGER PRIMARY KEY AUTOINCREMENT,
nameDisease TEXT NOT NULL,
infectious_rate REAL NOT NULL,
mortality_rate REAL NOT NULL,
incubation_period REAL NOT NULL,
development_period REAL NOT NULL,
convalescence_period REAL NOT NULL,
cause TEXT NOT NULL,
comment_section TEXT);

CREATE TABLE symptoms(
    IDsymptom INTEGER PRIMARY KEY AUTOINCREMENT,
    nameSymptom TEXT NOT NULL,
    pain_management TEXT NOT NULL);


CREATE TABLE disease_has_symptoms(
disease_id INTEGER REFERENCES diseases(IDdisease) ON DELETE CASCADE,
symptom_id INTEGER REFERENCES symptoms(IDsymptom) ON DELETE CASCADE,
PRIMARY KEY(disease_id, symptom_id));


CREATE TABLE patients(
    IDpatient INTEGER PRIMARY KEY AUTOINCREMENT,
    namePatient TEXT NOT NULL,
    surname TEXT NOT NULL,
    username UNIQUE NOT NULL,
    DoB DATE NOT NULL);

CREATE TABLE medical_records(
    IDmedical_record INTEGER PRIMARY KEY AUTOINCREMENT,
    patient INTEGER REFERENCES patients(IDpatient));


CREATE TABLE diagnoses(
    IDdiagnosis INTEGER PRIMARY KEY AUTOINCREMENT,
    nameDiagnosis TEXT NOT NULL,
    date CURRENT DATE,
    comment_section TEXT,
    disease_id INTEGER REFERENCES diseases(IDdisease),
    medicalRecord_id INTEGER REFERENCES medical_records(IDmedical_record));
```

```sql
CREATE TABLE treatments(
IDtreatment INTEGER PRIMARY KEY AUTOINCREMENT,
nameTreatment TEXT NOT NULL,
comment_section TEXT,
diagnosis_id INTEGER REFERENCES diagnoses(IDdiagnosis));

CREATE TABLE disease_has_treatments(
    disease_id INTEGER REFERENCES diseases(IDdisease) ON DELETE CASCADE,
    treatment_id INTEGER REFERENCES treatments(IDtreatment) ON DELETE CASCADE,
    PRIMARY KEY (disease_id, treatment_id));

CREATE TABLE diagnosis_has_treatments(
    diagnosis_id INTEGER REFERENCES diagnoses(IDdiagnosis) ON DELETE CASCADE,
    treatment_id INTEGER REFERENCES treatments(IDtreatment) ON DELETE CASCADE,
    PRIMARY KEY (diagnosis_id, treatment_id));

CREATE TABLE virtual_populations(
    idVirtual_population INTEGER PRIMARY KEY AUTOINCREMENT,
    Initial_population INTEGER  NOT NULL,
    p_infected REAL NOT NULL,
    p_healthy REAL NOT NULL,
    p_immune REAL NOT NULL,
    Immunity_period INTEGER,
    disease_id INTEGER REFERENCES diseases(IDdisease));


CREATE TABLE virtual_persons(
    IDvirtual_person INTEGER PRIMARY KEY AUTOINCREMENT,
    state TEXT NOT NULL,
    disease_countdown REAL NOT NULL,
    immunity_countdown REAL,
    virtual_population INTEGER REFERENCES virtual_populations(idVirtual_population));

CREATE TABLE simulations(
    IDsimulation INTEGER PRIMARY KEY AUTOINCREMENT,
    totalInfections INTEGER NOT NULL,
    totalDeaths INTEGER NOT NULL,
    totalImmunity INTEGER,
    totalPopulation INTEGER NOT NULL,
    simulationGraph BLOB NOT NULL,
    virtual_population INTEGER REFERENCES virtual_populations(idVirtual_population));
```