**CREATE DATABASE IF NOT EXISTS school\_system;**

**-- Create 'roles' table**

**CREATE TABLE IF NOT EXISTS roles (**

**role\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**role\_name VARCHAR(50) UNIQUE NOT NULL**

**);**

**-- Create 'classes' table**

**CREATE TABLE IF NOT EXISTS classes (**

**class\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**class\_name VARCHAR(100) NOT NULL UNIQUE**

**);**

**-- Create 'class\_codes' table**

**CREATE TABLE IF NOT EXISTS class\_codes (**

**code\_id INT AUTO\_INCREMENT PRIMARY KEY, -- Unique identifier for each code**

**class\_id INT NULL, -- References the associated class (can be NULL)**

**code VARCHAR(255) NOT NULL UNIQUE, -- Unique class registration code**

**is\_used BOOLEAN NOT NULL DEFAULT FALSE, -- Tracks if the code has been used (false by default)**

**created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP, -- Timestamp of code creation**

**updated\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP ON UPDATE CURRENT\_TIMESTAMP, -- Timestamp of last update**

**FOREIGN KEY (class\_id) REFERENCES classes(class\_id) ON DELETE SET NULL -- Links to classes table**

**);**

**-- Create 'subjects' table**

**CREATE TABLE IF NOT EXISTS subjects (**

**subject\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**subject\_name VARCHAR(100) COLLATE utf8mb4\_unicode\_ci NOT NULL UNIQUE**

**);**

**-- Create 'students' table**

**CREATE TABLE IF NOT EXISTS students (**

**student\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**surname VARCHAR(100) NOT NULL,**

**first\_name VARCHAR(100) NOT NULL,**

**middle\_name VARCHAR(100),**

**username VARCHAR(100) UNIQUE NOT NULL,**

**password VARCHAR(255) NOT NULL,**

**phone\_number VARCHAR(15),**

**email VARCHAR(255),**

**date\_of\_birth DATE,**

**address TEXT,**

**class\_id INT,**

**role\_id INT,**

**FOREIGN KEY (class\_id) REFERENCES classes(class\_id),**

**FOREIGN KEY (role\_id) REFERENCES roles(role\_id)**

**);**

**-- Create 'staff' table**

**CREATE TABLE IF NOT EXISTS staff (**

**staff\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**surname VARCHAR(100) NOT NULL,**

**first\_name VARCHAR(100) NOT NULL,**

**middle\_name VARCHAR(100),**

**username VARCHAR(100) UNIQUE,**

**password VARCHAR(255),**

**phone\_number VARCHAR(15),**

**email VARCHAR(255),**

**date\_of\_birth DATE,**

**address TEXT,**

**role\_id INT,**

**is\_admin BOOLEAN DEFAULT FALSE,**

**verification\_code VARCHAR(100),**

**code\_used BOOLEAN DEFAULT FALSE,**

**FOREIGN KEY (role\_id) REFERENCES roles(role\_id)**

**);**

**-- Create 'terms' table**

**CREATE TABLE IF NOT EXISTS terms (**

**term\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**term VARCHAR(50) NOT NULL,**

**year YEAR NOT NULL,**

**start\_date DATE,**

**end\_date DATE,**

**vacation\_date DATE,**

**resumption\_date DATE,**

**is\_current BOOLEAN DEFAULT FALSE,**

**status ENUM('Upcoming', 'Active', 'Ended', 'Vacation') DEFAULT 'Upcoming',**

**created\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP,**

**updated\_at TIMESTAMP DEFAULT CURRENT\_TIMESTAMP ON UPDATE CURRENT\_TIMESTAMP**

**);**

**-- Create 'scores' table**

**CREATE TABLE IF NOT EXISTS scores (**

**score\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**student\_id INT NOT NULL,**

**term\_id INT NOT NULL,**

**class\_id INT NOT NULL,**

**subject\_id INT NOT NULL,**

**test1 DECIMAL(5,2),**

**test2 DECIMAL(5,2),**

**total\_test DECIMAL(6,2), -- Total of test scores**

**exam\_score DECIMAL(5,2),**

**total\_score DECIMAL(6,2),**

**last\_term\_cum\_bf DECIMAL(6,2), -- Last term's cumulative brought forward**

**cumulative\_score DECIMAL(6,2),**

**pupils\_avg DECIMAL(5,2), -- Average score of the pupil**

**class\_avg DECIMAL(5,2), -- Average score of the class**

**position INT, -- Position of the pupil**

**grade VARCHAR(5), -- Grade obtained**

**FOREIGN KEY (student\_id) REFERENCES students(student\_id),**

**FOREIGN KEY (term\_id) REFERENCES terms(term\_id),**

**FOREIGN KEY (class\_id) REFERENCES classes(class\_id),**

**FOREIGN KEY (subject\_id) REFERENCES subjects(subject\_id)**

**INDEX idx\_student\_id (student\_id),**

**INDEX idx\_class\_id (class\_id)**

**);**

**-- Create 'staff\_assignments' table**

**CREATE TABLE IF NOT EXISTS staff\_assignments (**

**staff\_id INT NOT NULL,**

**class\_id INT NOT NULL,**

**subject\_id INT NOT NULL,**

**PRIMARY KEY (staff\_id, class\_id, subject\_id),**

**FOREIGN KEY (staff\_id) REFERENCES staff(staff\_id),**

**FOREIGN KEY (class\_id) REFERENCES classes(class\_id),**

**FOREIGN KEY (subject\_id) REFERENCES subjects(subject\_id)**

**);**

**-- Create 'comments' table**

**CREATE TABLE IF NOT EXISTS comments (**

**comment\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**student\_id INT NOT NULL,**

**term\_id INT NOT NULL,**

**guardian\_surname VARCHAR(100),**

**guardian\_first\_name VARCHAR(100),**

**guardian\_middle\_name VARCHAR(100),**

**class\_teacher\_comment TEXT,**

**guardian\_comment TEXT,**

**head\_teacher\_comment TEXT,**

**FOREIGN KEY (student\_id) REFERENCES students(student\_id),**

**FOREIGN KEY (term\_id) REFERENCES terms(term\_id)**

**);**

**CREATE TABLE class\_students (**

**class\_student\_id INT AUTO\_INCREMENT PRIMARY KEY,**

**class\_id INT NOT NULL,**

**student\_id UNIQUE INT NOT NULL,**

**FOREIGN KEY (class\_id) REFERENCES classes(class\_id),**

**FOREIGN KEY (student\_id) REFERENCES students(student\_id)**

**);**

**ALTER TABLE scores**

**ADD UNIQUE KEY unique\_scores (student\_id, class\_id, subject\_id, term\_id);**

**-- Insert for classes**

**insert into classes (class\_name)**

**values('Pry1');**

**insert into classes (class\_name)**

**values('Pry2');**

**insert into classes (class\_name)**

**values('Pry3');**

**insert into classes (class\_name)**

**values('Pry4');**

**insert into classes (class\_name)**

**values('Pry5');**

**insert into classes (class\_name)**

**values('Pry6');**

**-- Insert for roles**

**insert into roles (role\_name)**

**values ('student');**

**insert into roles (role\_name)**

**values ('staff');**

**-- insert for staff**

**insert into staff (surname, first\_name, middle\_name, username, password, is\_admin, role\_id)**

**values ('Adu', 'Ayomide', 'Oluwanifesimi', ‘admin’, 'scrypt:32768:8:1$bltNQkwTDjLvO8Tk$503b25a489d1626404cebe8f4dad0e5d3b5f4ca8d46fc769b7007a1efb8fc90571ebe65043913ecb79a9f4829ad9fb1172dd25337f036f69cf05eb9c64b83edf' , TRUE, (SELECT role\_id FROM roles WHERE role\_name = 'staff'));**

**-- Insert for subjects**

**INSERT INTO subjects (subject\_name)**

**VALUES ('BST');**

**INSERT INTO subjects (subject\_name)**

**VALUES ('CREATIVE ART');**

**INSERT INTO subjects (subject\_name)**

**VALUES ('ENGLISH');**

**INSERT INTO subjects (subject\_name)**

**VALUES ('FRENCH');**

**INSERT INTO subjects (subject\_name)**

**VALUES ('MATHEMATICS');**

**INSERT INTO subjects (subject\_name)**

**VALUES ('NVE');**

**INSERT INTO subjects (subject\_name)**

**VALUES ('PVS');**

**INSERT INTO subjects (subject\_name)**

**VALUES ('RELIGION');**

**INSERT INTO subjects (subject\_name)**

**VALUES ('Y0RUBA');**