SQL Virtual Pet Adoption Database Project

Description:

A system where users can view available pets for adoption, get information about each pet (like age, type, medical history), and apply for adoption. The database will store pet details, user applications, and adoption statuses.

Functionalities:

- **Browse Pets**:
    - View a list of all available pets for adoption.
    - See detailed information about each pet, including name, type (e.g., dog, cat, bird), age, and medical history.
- **User Registration**:
    - Sign up to the system by providing your name, email, and phone number.
    - Ensure unique email addresses for every user to avoid duplication.
- **Apply for Adoption**:
    - Once interested in a particular pet, apply for its adoption.
    - Upon application, the status of the pet changes to 'Pending' until further processing.
- **Adoption Status**:
    - Check the status of your adoption application.
    - Pets can have the following statuses:
        - **Available**: The pet is available for adoption.
        - **Pending**: An adoption application has been submitted and is awaiting approval.
        - **Adopted**: The pet has been successfully adopted by a user.
- **View Your Adoptions**:
    - Access a history of all the pets you have applied for or adopted.
    - View the application date and current status for each application.

Code:

```
-- Database Creation
```

```
CREATE DATABASE PetAdoption;

USE PetAdoption;

-- Pets Table
CREATE TABLE Pets (
    pet_id INTEGER PRIMARY KEY AUTOINCREMENT,
    name VARCHAR(255) NOT NULL,
    type VARCHAR(255) NOT NULL,
    age INTEGER NOT NULL,
    medical_history  TEXT,
    adoption_status  VARCHAR(50) DEFAULT 'Available'
);

-- Users Table
CREATE TABLE Users (
    user_id INTEGER PRIMARY KEY AUTOINCREMENT,
    name VARCHAR(255) NOT NULL,
    email VARCHAR(255) UNIQUE NOT NULL,
    phone VARCHAR(50) NOT NULL
);

-- Adoptions Table
CREATE TABLE Adoptions (
    adoption_id INTEGER PRIMARY KEY AUTOINCREMENT,
    pet_id INTEGER REFERENCES Pets(pet_id),
    user_id INTEGER REFERENCES Users(user_id),
    application_date  DATE DEFAULT CURRENT_DATE,
```

```
    status VARCHAR(50) DEFAULT 'Pending'
);
```

Operations

a) **Insertion**

```
-- Adding pets
INSERT INTO Pets (name, type, age, medical_history) VALUES ('Whiskers', 'Cat', 2, 'Healthy');
INSERT INTO Pets (name, type, age, medical_history) VALUES ('Rover', 'Dog', 5, 'Had a leg injury in 2021');

-- Adding users
INSERT INTO Users (name, email, phone) VALUES ('John Doe', 'john.doe@example.com', '123-456-7890');
INSERT INTO Users (name, email, phone) VALUES ('Jane Smith', 'jane.smith@example.com', '987-654-3210');
```

b) **Adoption Operations**

```
-- John Doe wants to adopt Whiskers
INSERT INTO Adoptions (pet_id, user_id) VALUES (1, 1);

-- Update pet's adoption status to Pending after application
UPDATE Pets SET adoption_status = 'Pending' WHERE pet_id = 1;
```

c) **Queries**

```
-- List all available pets for adoption
SELECT * FROM Pets WHERE adoption_status = 'Available';

-- List all pets adopted by John Doe
SELECT Pets.name, Pets.type, Adoptions.application_date
FROM Pets
JOIN Adoptions ON Pets.pet_id = Adoptions.pet_id
JOIN Users ON Adoptions.user_id = Users.user_id
WHERE Users.name = 'John Doe';
```