Data Model

1. **User**
Attributes: userID, firstName, lastName, email, password, role
Relationships:
-One-to-many with Event Registration (a user can register for multiple events)
-One-to-many with Donation (a user can make multiple donations)
-One-to-many with Subscription (a user can subscribe to multiple events)

2. **Admin**
Attributes: adminID, permissions
Relationships:
-One-to-many with Event (an admin can create multiple events)

3. **Event**
Attributes: eventID, eventTitle, eventDescription, eventDate, eventLocation, maxParticipants, volunteersRequired, skillsRequired
Relationships:
-Many-to-many with User through Event Registration (users register for events)
-One-to-many with Subscription (an event can have multiple subscriptions)
-Many-to-many with Volunteer (events can require volunteers with specific skills)

4. **Event Registration**
Attributes: registrationID, eventID, userID, registrationDate, status
Relationships:
-Many-to-one with Event
-Many-to-one with User

5. **Donation**
Attributes: donationID, donorID, amount, donationType, donationFrequency, status
Relationships:
-Many-to-one with User (each donation is linked to a specific user)

6. **Volunteer**
Attributes: volunteerID, skills, availability, eventIDs
Relationships:
-Many-to-many with Event (since a volunteer can sign up for multiple events, and each event can have multiple volunteers).
-One-to-many with Subscription (a volunteer can have multiple subscriptions, e.g., to receive updates about different events).

7. **Subscription**

Attributes: subscriptionID, userID, eventID, isSubscribed
Relationships:
-Many-to-one with User
-Many-to-one with Event

Schema

```
CREATE TABLE User (
    userID INT PRIMARY KEY,
    firstName VARCHAR(100),
    lastName VARCHAR(100),
    email VARCHAR(100) UNIQUE,
    password VARCHAR(255),
    role ENUM('Member', 'Admin') NOT NULL
);


CREATE TABLE Admin (
    adminID INT PRIMARY KEY,
    permissions TEXT
);

CREATE TABLE Event (
    eventID INT PRIMARY KEY,
    eventTitle VARCHAR(255),
    eventDescription TEXT,
    eventDate DATETIME,
    eventLocation VARCHAR(255),
    maxParticipants INT,
    volunteersRequired BOOLEAN,
    skillsRequired TEXT
);

CREATE TABLE EventRegistration (
    registrationID INT PRIMARY KEY,
    eventID INT,
    userID INT,
    registrationDate DATETIME,
    status ENUM('Confirmed', 'Cancelled'),
    FOREIGN KEY (eventID) REFERENCES Event(eventID),
    FOREIGN KEY (userID) REFERENCES User(userID)
);
```
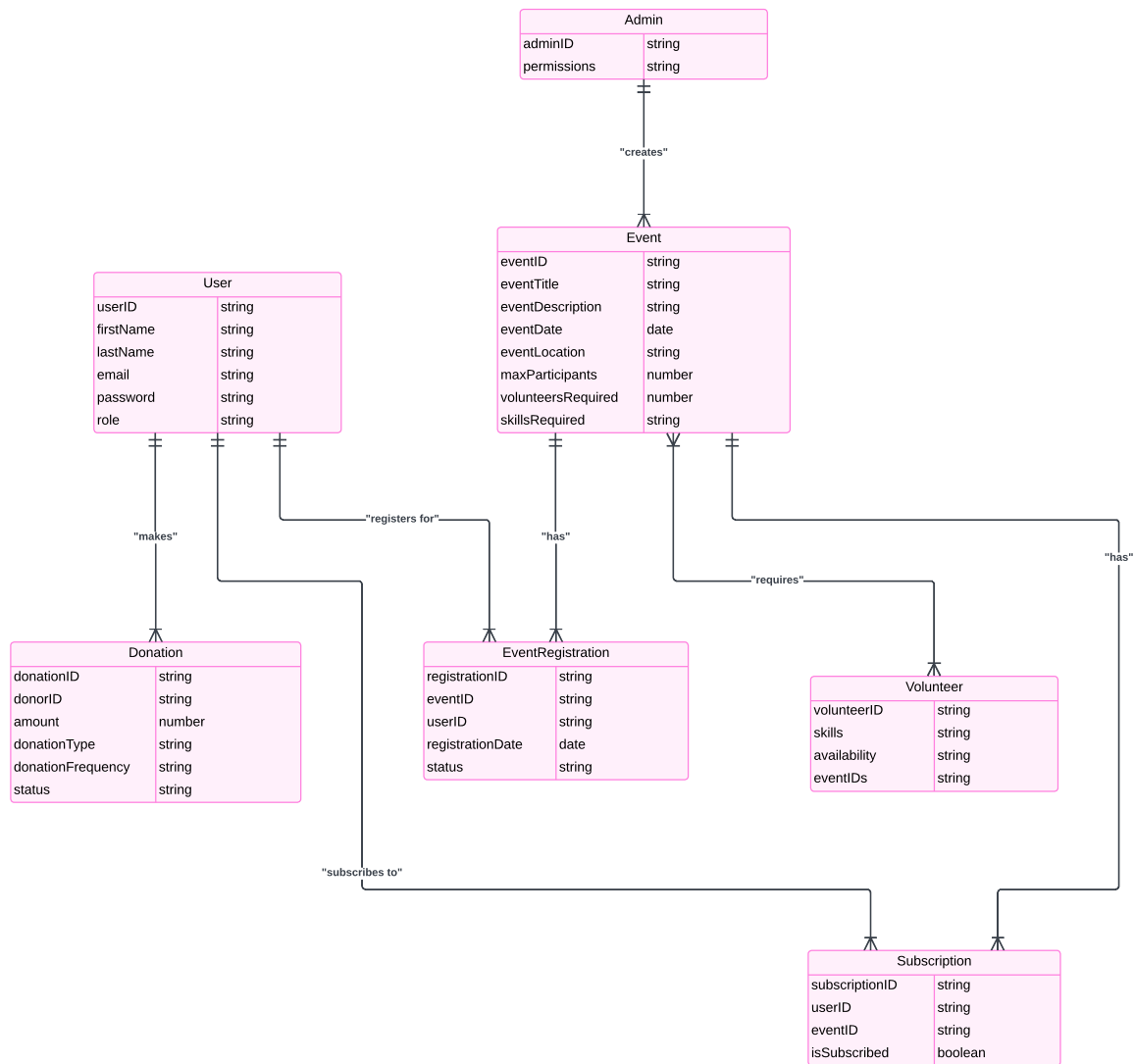
```
CREATE TABLE Donation (
    donationID INT PRIMARY KEY,
    donorID INT,
    amount DECIMAL(10, 2),
    donationType ENUM('One-time', 'Recurring'),
    donationFrequency ENUM('Weekly', 'Monthly', 'Yearly'),
    status ENUM('Pending', 'Completed'),
    FOREIGN KEY (donorID) REFERENCES User(userID)
);

CREATE TABLE Volunteer (
    volunteerID INT PRIMARY KEY,
    skills TEXT,
    availability TEXT,
    eventIDs TEXT  -- stores a comma-separated list of event IDs for which the volunteer is
available
);

CREATE TABLE Subscription (
    subscriptionID INT PRIMARY KEY,
    userID INT,
    eventID INT,
    isSubscribed BOOLEAN,
    FOREIGN KEY (userID) REFERENCES User(userID),
    FOREIGN KEY (eventID) REFERENCES Event(eventID)
);
```

ER Diagram

Admin

adminID	string
permissions	string

"creates"

Event

eventID	string
eventTitle	string
eventDescription	string
eventDate	date
eventLocation	string
maxParticipants	number
volunteersRequired	number
skillsRequired	string

User

userID	string
firstName	string
lastName	string
email	string
password	string
role	string

"makes"

"registers for"

"has"

"requires"

"has"

Donation

donationID	string
donorID	string
amount	number
donationType	string
donationFrequency	string
status	string

EventRegistration

registrationID	string
eventID	string
userID	string
registrationDate	date
status	string

Volunteer

volunteerID	string
skills	string
availability	string
eventIDs	string

"subscribes to"

Subscription

subscriptionID	string
userID	string
eventID	string
isSubscribed	boolean

Sample Data

INSERT INTO User (userID, firstName, lastName, email, password, role)
VALUES
(1, 'John', 'Doe', 'john.doe@example.com', 'password123', 'Member'),
(2, 'Jane', 'Smith', 'jane.smith@example.com', 'password456', 'Member'),
(3, 'Alice', 'Johnson', 'alice.johnson@example.com', 'password789', 'Admin');

```sql
INSERT INTO Admin (adminID, permissions)
VALUES
(1, 'Create Event, View Donations, Manage Users');


INSERT INTO Event (eventID, eventTitle, eventDescription, eventDate, eventLocation,
maxParticipants, volunteersRequired, skillsRequired)
VALUES
(1, 'Yoga Class', 'A peaceful yoga class for all levels.', '2024-11-20 09:00:00', 'Temple Hall',
20, TRUE, 'Yoga, Meditation'),
(2, 'Meditation Retreat', 'A weekend meditation retreat.', '2024-12-05 18:00:00', 'Temple
Grounds', 15, TRUE, 'Meditation'),
(3, 'Community Prayer', 'Join us for a community prayer session.', '2024-11-15 10:00:00',
'Main Temple', 50, FALSE, 'None');

INSERT INTO EventRegistration (registrationID, eventID, userID, registrationDate, status)
VALUES
(1, 1, 1, '2024-11-10 10:00:00', 'Confirmed'),
(2, 2, 2, '2024-11-10 11:00:00', 'Confirmed'),
(3, 3, 1, '2024-11-10 12:00:00', 'Cancelled');

INSERT INTO Donation (donationID, donorID, amount, donationType, donationFrequency,
status)
VALUES
(1, 1, 50.00, 'One-time', 'N/A', 'Completed'),
(2, 2, 100.00, 'Recurring', 'Monthly', 'Pending');

INSERT INTO Volunteer (volunteerID, skills, availability, eventIDs)
VALUES
(1, 'Yoga, Meditation', 'Weekdays 9 AM - 12 PM', '1, 2'),
(2, 'Meditation, Prayer', 'Weekends 9 AM - 3 PM', '1, 3');

INSERT INTO Subscription (subscriptionID, userID, eventID, isSubscribed)
VALUES
(1, 1, 1, TRUE),
(2, 2, 2, TRUE),
(3, 1, 3, FALSE);
```