For the **Pet Adoption and Rescue Management System**, here’s a suggested SQL schema with tables, columns, and relationships, ensuring no many-to-many relationships.

**1. Pets Table**

**Purpose:** To store information about the pets available for adoption or in rescue.

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| PetID | INT (PK) | Unique identifier for each pet. |
| Name | VARCHAR(50) | Name of the pet. |
| Species | VARCHAR(30) | Species (e.g., Dog, Cat, Bird). |
| Breed | VARCHAR(50) | Breed of the pet. |
| Age | INT | Age of the pet (in years). |
| Gender | VARCHAR(10) | Gender of the pet. |
| Status | VARCHAR(20) | Status (e.g., Adopted, Available). |
| RescueDate | DATE | Date when the pet was rescued. |
| AdoptionDate | DATE (NULL) | Date when the pet was adopted. |
| MedicalRecordID | INT (FK) | Link to the MedicalRecords table. |
| FosterHomeID | INT (FK) | Link to the FosterHomes table. |

**2. FosterHomes Table**

**Purpose:** To store information about foster homes caring for rescued pets.

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| FosterHomeID | INT (PK) | Unique identifier for each foster home. |
| Name | VARCHAR(100) | Name of the foster home. |
| Address | TEXT | Address of the foster home. |
| ContactPerson | VARCHAR(100) | Name of the primary contact person. |
| ContactPhone | VARCHAR(15) | Contact phone number. |
| Capacity | INT | Maximum number of pets the home can hold. |
| CurrentOccupancy | INT | Number of pets currently in care. |

**3. Adopters Table**

**Purpose:** To store details about people who have adopted pets.

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| AdopterID | INT (PK) | Unique identifier for each adopter. |
| Name | VARCHAR(100) | Full name of the adopter. |
| Email | VARCHAR(100) | Email address. |
| Phone | VARCHAR(15) | Phone number. |
| Address | TEXT | Residential address. |
| AdoptionDate | DATE | Date of the pet adoption. |
| PetID | INT (FK) | Link to the Pets table. |

**4. MedicalRecords Table**

**Purpose:** To store medical history and records for each pet.

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| MedicalRecordID | INT (PK) | Unique identifier for the medical record. |
| PetID | INT (FK) | Link to the Pets table. |
| VaccinationDate | DATE | Date of the latest vaccination. |
| DiseaseHistory | TEXT | List of diseases the pet has had. |
| IsVaccinated | BOOLEAN | Whether the pet is fully vaccinated. |
| Notes | TEXT | Additional medical notes. |

**5. Rescuers Table**

**Purpose:** To store details of individuals or organizations involved in rescuing pets.

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| RescuerID | INT (PK) | Unique identifier for the rescuer. |
| Name | VARCHAR(100) | Name of the rescuer. |
| Phone | VARCHAR(15) | Contact phone number. |
| Organization | VARCHAR(100) | Name of the organization (if applicable). |
| PetID | INT (FK) | Link to the Pets table. |
| RescueDate | DATE | Date of rescue. |

**Relationships (Ensuring No Many-to-Many):**

1. **Pets → MedicalRecords**: One-to-One (MedicalRecordID is a FK in Pets).
2. **Pets → FosterHomes**: Many-to-One (FosterHomeID is a FK in Pets).
3. **Pets → Adopters**: One-to-One (PetID is a FK in Adopters).
4. **Pets → Rescuers**: One-to-One (PetID is a FK in Rescuers).

This schema ensures there are no many-to-many relationships and maintains a clear hierarchical structure

**Schema Design from the Latest SQL Dump**

The following schema includes **tables, columns, and data types** extracted from your database:

**Adopters Table**

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| AdopterID | int (PK) | Unique identifier for each adopter |
| Name | varchar(100) | Full name of the adopter |
| Email | varchar(100) | Email address of the adopter |
| Phone | varchar(15) | Contact phone number |
| Address | text | Residential address |
| AdoptionFee | decimal(10,2) | Fee associated with adoption |

**ContactDetails Table**

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| ContactID | int (PK) | Unique identifier for contact details |
| ContactPerson | varchar(100) | Name of the contact person |
| ContactPhone | varchar(15) | Phone number of the contact person |

**CustomerFeedback Table**

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| FeedbackID | int (PK) | Unique identifier for feedback |
| AdopterID | int (FK) | Links feedback to adopters |
| Comments | text | Feedback comments from adopters |
| Rating | int | Rating given by adopter |

**FosterHomes Table**

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| FosterHomeID | int (PK) | Unique identifier for each foster home |
| Name | varchar(100) | Name of the foster home |
| Address | text | Location of the foster home |
| ManagerName | varchar(100) | Name of the person managing the home |
| ContactPhone | varchar(20) | Contact phone number |
| Capacity | int | Maximum number of pets that can be housed |
| CurrentOccupancy | int | Number of pets currently housed |
| ContactID | int (FK) | Reference to ContactDetails |

**MedicalRecords Table**

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| MedicalRecordID | int (PK) | Unique identifier for the medical record |
| PetID | int (FK) | Links medical records to pets |
| VaccinationDate | date | Date of last vaccination |
| DiseaseHistory | text | Past illnesses of the pet |
| IsVaccinated | tinyint(1) | 1 if vaccinated, 0 if not |
| Notes | text | Additional medical notes |

**Pets Table**

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| PetID | int (PK) | Unique identifier for each pet |
| Name | varchar(50) | Name of the pet |
| Species | varchar(30) | Species (e.g., Dog, Cat, Bird) |
| Breed | varchar(50) | Breed of the pet |
| Age | int | Age of the pet (in years) |
| Gender | varchar(10) | Gender of the pet |
| Status | varchar(20) | Current adoption status (Adopted, Available) |
| RescueDate | date | Date when the pet was rescued |
| AdoptionDate | date (NULL) | Date when the pet was adopted |
| FosterHomeID | int (FK) | Reference to the FosterHomes table |
| SpeciesID | int (FK) | Reference to the Species table |

**PetSpecies Table**

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| SpeciesID | int (PK) | Unique identifier for species |
| SpeciesName | varchar(30) | Name of the species |

**Rescuers Table**

| **Column Name** | **Data Type** | **Description** |
| --- | --- | --- |
| RescuerID | int (PK) | Unique identifier for each rescuer |
| Name | varchar(100) | Name of the rescuer |
| Phone | varchar(15) | Contact phone number |
| Organization | varchar(100) | Organization name (if applicable) |
| AdopterID | int (FK) | Reference to Adopters table |
| PetID | int (FK) | Reference to Pets table |
| RescueDate | date | Date when the pet was rescued |

**Relationships Between Tables**

1️ **Pets → MedicalRecords** → One-to-One (**MedicalRecordID** as FK in **Pets**).  
2️ **Pets → FosterHomes** → Many-to-One (**FosterHomeID** as FK in **Pets**).  
3️ **Pets → Adopters** → One-to-One (**PetID** as FK in **Adopters**).  
4️ **Pets → Rescuers** → One-to-One (**PetID** as FK in **Rescuers**).  
5️ **Pets → PetSpecies** → Many-to-One (**SpeciesID** as FK in **Pets**).  
6️ **FosterHomes → ContactDetails** → Many-to-One (**ContactID** as FK in **FosterHomes**).  
7️ **CustomerFeedback → Adopters** → Many-to-One (**AdopterID** as FK in **CustomerFeedback**).