**1. Admin Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| AdminID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique ID for Admin |
| Name | VARCHAR(100) | NOT NULL | Admin's full name |
| Email | VARCHAR(100) | UNIQUE, NOT NULL | Admin's email |
| Password | VARCHAR(255) | NOT NULL | Encrypted password |
| Role | VARCHAR(50) | DEFAULT 'Moderator' | Admin role (SuperAdmin, Moderator) |
| CreatedAt | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Account creation timestamp |

**2. Patient (Fund Requester) Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| PatientID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique ID for Patient |
| FullName | VARCHAR(100) | NOT NULL | Patient's full name |
| Email | VARCHAR(100) | UNIQUE, NOT NULL | Patient's email |
| Phone | VARCHAR(15) | NOT NULL | Contact number |
| Password | VARCHAR(255) | NOT NULL | Encrypted password |
| Address | TEXT | NOT NULL | Patient's residential address |
| MedicalCondition | TEXT | NOT NULL | Patient's medical condition |
| HospitalName | VARCHAR(100) | NOT NULL | Associated hospital |
| CreatedAt | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Account creation timestamp |

**3. Donor Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| DonorID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique ID for Donor |
| FullName | VARCHAR(100) | NOT NULL | Donor's full name |
| Email | VARCHAR(100) | UNIQUE, NOT NULL | Donor's email |
| Phone | VARCHAR(15) | NOT NULL | Contact number |
| Password | VARCHAR(255) | NOT NULL | Encrypted password |
| Address | TEXT | NOT NULL | Donor's address |
| DonationAmount | DECIMAL(10,2) | DEFAULT 0.00 | Total donation made |
| TrustScore | FLOAT | DEFAULT 5.0 | Donor's credibility rating |
| CreatedAt | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Account creation timestamp |

**4. Hospital Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| HospitalID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique ID for Hospital |
| Name | VARCHAR(100) | NOT NULL | Hospital name |
| Address | TEXT | NOT NULL | Hospital address |
| ContactNumber | VARCHAR(15) | NOT NULL | Hospital contact number |
| Email | VARCHAR(100) | UNIQUE, NOT NULL | Hospital's email |
| RegistrationNumber | VARCHAR(50) | UNIQUE, NOT NULL | Hospital registration ID |
| Verified | BOOLEAN | DEFAULT FALSE | Verification status |
| CreatedAt | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Record creation timestamp |

**5. FundRequest Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| RequestID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique ID for fund request |
| PatientID | INT | FOREIGN KEY REFERENCES Patient(PatientID) | Associated patient |
| HospitalID | INT | FOREIGN KEY REFERENCES Hospital(HospitalID) | Associated hospital |
| AmountRequested | DECIMAL(10,2) | NOT NULL | Requested fund amount |
| MedicalReport | TEXT | NOT NULL | Link to uploaded document |
| Status | ENUM('Pending', 'Verified', 'Rejected', 'Fraud Flagged', 'Paid') | DEFAULT 'Pending' | Fund request status |
| CreatedAt | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Request submission timestamp |

**6. FraudDetection Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| DetectionID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique ID for fraud detection |
| RequestID | INT | FOREIGN KEY REFERENCES FundRequest(RequestID) | Fund request under review |
| DetectedFraud | BOOLEAN | DEFAULT FALSE | Fraud detected status |
| FraudType | TEXT | NULLABLE | Type of fraud detected |
| ConfidenceScore | FLOAT | NOT NULL | Fraud detection accuracy score |
| DetectedAt | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Detection timestamp |

**7. Payment Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| PaymentID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique ID for payment |
| DonorID | INT | FOREIGN KEY REFERENCES Donor(DonorID) | Donor making payment |
| RequestID | INT | FOREIGN KEY REFERENCES FundRequest(RequestID) | Fund request associated |
| Amount | DECIMAL(10,2) | NOT NULL | Donation amount |
| PaymentMethod | VARCHAR(50) | NOT NULL | Payment mode (Credit Card, UPI, etc.) |
| TransactionStatus | ENUM('Success', 'Failed', 'Pending') | DEFAULT 'Pending' | Status of transaction |
| CreatedAt | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Transaction timestamp |

**8. Notification Table**

|  |  |  |  |
| --- | --- | --- | --- |
| **Column Name** | **Data Type** | **Constraints** | **Description** |
| NotificationID | INT | PRIMARY KEY, AUTO\_INCREMENT | Unique notification ID |
| UserID | INT | NOT NULL | Recipient ID (Admin, Donor, Patient) |
| Message | TEXT | NOT NULL | Notification content |
| IsRead | BOOLEAN | DEFAULT FALSE | Read/unread status |
| CreatedAt | TIMESTAMP | DEFAULT CURRENT\_TIMESTAMP | Notification timestamp |