**Schema and Table creation**

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| assignment5 |

| attendance |

| crud\_example |

| fb\_sql |

| information\_schema |

| library\_system |

| my\_db |

| mysql |

| performance\_schema |

| students |

| sys |

| training |

| world |

+--------------------+

13 rows in set (0.00 sec)

mysql> create database helthcare\_system;

Query OK, 1 row affected (0.01 sec)

mysql> use helthcare\_system;

Database changed

mysql> CREATE TABLE Patients (

-> PatientID INT AUTO\_INCREMENT PRIMARY KEY,

-> Name VARCHAR(100) NOT NULL,

-> DOB DATE NOT NULL,

-> Gender ENUM('Male', 'Female', 'Other') NOT NULL,

-> ContactDetails VARCHAR(255) NOT NULL,

-> InsuranceInfo VARCHAR(255)

-> );

Query OK, 0 rows affected (0.02 sec)

mysql> desc patients;

+----------------+-------------------------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+----------------+-------------------------------+------+-----+---------+----------------+

| PatientID | int | NO | PRI | NULL | auto\_increment |

| Name | varchar(100) | NO | | NULL | |

| DOB | date | NO | | NULL | |

| Gender | enum('Male','Female','Other') | NO | | NULL | |

| ContactDetails | varchar(255) | NO | | NULL | |

| InsuranceInfo | varchar(255) | YES | | NULL | |

+----------------+-------------------------------+------+-----+---------+----------------+

6 rows in set (0.02 sec)

mysql> CREATE TABLE Doctors (

-> DoctorID INT AUTO\_INCREMENT PRIMARY KEY,

-> Name VARCHAR(100) NOT NULL,

-> Specialty VARCHAR(100) NOT NULL,

-> ContactDetails VARCHAR(255) NOT NULL

-> );

Query OK, 0 rows affected (0.04 sec)

mysql> desc doctors;

+----------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+----------------+--------------+------+-----+---------+----------------+

| DoctorID | int | NO | PRI | NULL | auto\_increment |

| Name | varchar(100) | NO | | NULL | |

| Specialty | varchar(100) | NO | | NULL | |

| ContactDetails | varchar(255) | NO | | NULL | |

+----------------+--------------+------+-----+---------+----------------+

4 rows in set (0.00 sec)

mysql> CREATE TABLE MedicalHistory (

-> HistoryID INT AUTO\_INCREMENT PRIMARY KEY,

-> PatientID INT NOT NULL,

-> Diagnosis VARCHAR(255) NOT NULL,

-> Allergies VARCHAR(255),

-> Medications VARCHAR(255),

-> FOREIGN KEY (PatientID) REFERENCES Patients(PatientID)

-> );

Query OK, 0 rows affected (0.06 sec)

mysql> desc medicalhistory;

+-------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-------------+--------------+------+-----+---------+----------------+

| HistoryID | int | NO | PRI | NULL | auto\_increment |

| PatientID | int | NO | MUL | NULL | |

| Diagnosis | varchar(255) | NO | | NULL | |

| Allergies | varchar(255) | YES | | NULL | |

| Medications | varchar(255) | YES | | NULL | |

+-------------+--------------+------+-----+---------+----------------+

5 rows in set (0.00 sec)

mysql> CREATE TABLE EncounterRecords (

-> EncounterID INT AUTO\_INCREMENT PRIMARY KEY,

-> PatientID INT NOT NULL,

-> DoctorID INT NOT NULL,

-> Date DATE NOT NULL,

-> Type ENUM('Appointment', 'Admission', 'Discharge') NOT NULL,

-> FOREIGN KEY (PatientID) REFERENCES Patients(PatientID),

-> FOREIGN KEY (DoctorID) REFERENCES Doctors(DoctorID)

-> );

Query OK, 0 rows affected (0.04 sec)

mysql> desc EncounterRecords ;

+-------------+---------------------------------------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-------------+---------------------------------------------+------+-----+---------+----------------+

| EncounterID | int | NO | PRI | NULL | auto\_increment |

| PatientID | int | NO | MUL | NULL | |

| DoctorID | int | NO | MUL | NULL | |

| Date | date | NO | | NULL | |

| Type | enum('Appointment','Admission','Discharge') | NO | | NULL | |

+-------------+---------------------------------------------+------+-----+---------+----------------+

5 rows in set (0.01 sec)

mysql> CREATE TABLE DiagnosticTests (

-> TestID INT AUTO\_INCREMENT PRIMARY KEY,

-> PatientID INT NOT NULL,

-> TestType VARCHAR(100) NOT NULL,

-> Result VARCHAR(255) NOT NULL,

-> TestDate DATE NOT NULL,

-> FOREIGN KEY (PatientID) REFERENCES Patients(PatientID)

-> );

Query OK, 0 rows affected (0.06 sec)

mysql> desc DiagnosticTests ;

+-----------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-----------+--------------+------+-----+---------+----------------+

| TestID | int | NO | PRI | NULL | auto\_increment |

| PatientID | int | NO | MUL | NULL | |

| TestType | varchar(100) | NO | | NULL | |

| Result | varchar(255) | NO | | NULL | |

| TestDate | date | NO | | NULL | |

+-----------+--------------+------+-----+---------+----------------+

5 rows in set (0.00 sec)

mysql> CREATE TABLE Prescriptions (

-> PrescriptionID INT AUTO\_INCREMENT PRIMARY KEY,

-> PatientID INT NOT NULL,

-> DoctorID INT NOT NULL,

-> Medication VARCHAR(100) NOT NULL,

-> Dosage VARCHAR(100) NOT NULL,

-> DispenseDetails VARCHAR(255),

-> Date DATE NOT NULL,

-> FOREIGN KEY (PatientID) REFERENCES Patients(PatientID),

-> FOREIGN KEY (DoctorID) REFERENCES Doctors(DoctorID)

-> );

Query OK, 0 rows affected (0.07 sec)

mysql> desc Prescriptions ;

+-----------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-----------------+--------------+------+-----+---------+----------------+

| PrescriptionID | int | NO | PRI | NULL | auto\_increment |

| PatientID | int | NO | MUL | NULL | |

| DoctorID | int | NO | MUL | NULL | |

| Medication | varchar(100) | NO | | NULL | |

| Dosage | varchar(100) | NO | | NULL | |

| DispenseDetails | varchar(255) | YES | | NULL | |

| Date | date | NO | | NULL | |

+-----------------+--------------+------+-----+---------+----------------+

7 rows in set (0.00 sec)

mysql> CREATE TABLE Procedures (

-> ProcedureID INT AUTO\_INCREMENT PRIMARY KEY,

-> PatientID INT NOT NULL,

-> DoctorID INT NOT NULL,

-> ProcedureName VARCHAR(100) NOT NULL,

-> ProcedureDate DATE NOT NULL,

-> FOREIGN KEY (PatientID) REFERENCES Patients(PatientID),

-> FOREIGN KEY (DoctorID) REFERENCES Doctors(DoctorID)

-> );

Query OK, 0 rows affected (0.06 sec)

mysql> desc Procedures ;

+---------------+--------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+---------------+--------------+------+-----+---------+----------------+

| ProcedureID | int | NO | PRI | NULL | auto\_increment |

| PatientID | int | NO | MUL | NULL | |

| DoctorID | int | NO | MUL | NULL | |

| ProcedureName | varchar(100) | NO | | NULL | |

| ProcedureDate | date | NO | | NULL | |

+---------------+--------------+------+-----+---------+----------------+

5 rows in set (0.01 sec)

**Data Inserted into table**

mysql> table patients;

+-----------+----------------+------------+--------+----------------+---------------+

| PatientID | Name | DOB | Gender | ContactDetails | InsuranceInfo |

+-----------+----------------+------------+--------+----------------+---------------+

| 1 | Bhagvat Mutthe | 2002-10-11 | Male | 9876543210 | Policy123 |

| 2 | Pravin Kale | 2002-05-15 | Male | 9876543211 | Policy124 |

| 3 | Ajay Palhhal | 2001-07-20 | Male | 9876543212 | Policy125 |

| 4 | Ankush Pawar | 2001-03-10 | Male | 9876543213 | Policy126 |

| 5 | Amol Pawar | 2003-01-25 | Male | 9876543214 | Policy127 |

| 6 | Ranjit Kale | 2000-09-12 | Male | 9876543215 | Policy128 |

| 7 | Shubham Wagh | 1996-08-05 | Male | 9876543216 | Policy129 |

| 8 | Mithali Patil | 2002-11-24 | Female | 9876543217 | Policy130 |

| 9 | Trupti Patil | 2004-04-18 | Female | 9876543218 | Policy131 |

| 10 | Rohini Nikam | 2002-12-01 | Female | 9876543219 | Policy132 |

+-----------+----------------+------------+--------+----------------+---------------+

10 rows in set (0.00 sec)

mysql> table doctors;;

+----------+-------------------+------------------+----------------+

| DoctorID | Name | Specialty | ContactDetails |

+----------+-------------------+------------------+----------------+

| 1 | Dr. Rajesh Sharma | Cardiology | 9876543220 |

| 2 | Dr. Priya Mehta | Orthopedics | 9876543221 |

| 3 | Dr. Amit Joshi | General Medicine | 9876543222 |

| 4 | Dr. Kavita Desai | Pediatrics | 9876543223 |

| 5 | Dr. Ramesh Rao | Neurology | 9876543224 |

+----------+-------------------+------------------+----------------+

5 rows in set (0.00 sec)

ERROR:

No query specified

mysql> table MedicalHistory ; table EncounterRecords ; table DiagnosticTests ; table Prescriptions ; table Procedures ;

+-----------+-----------+----------------------+-----------+--------------------+

| HistoryID | PatientID | Diagnosis | Allergies | Medications |

+-----------+-----------+----------------------+-----------+--------------------+

| 1 | 1 | Hypertension | None | Atenolol |

| 2 | 2 | Diabetes | Peanuts | Metformin |

| 3 | 3 | Asthma | Dust | Albuterol |

| 4 | 4 | Anemia | None | Iron Supplements |

| 5 | 5 | Migraine | None | Paracetamol |

| 6 | 6 | Arthritis | None | Ibuprofen |

| 7 | 7 | Hyperthyroidism | None | Methimazole |

| 8 | 8 | Vitamin D Deficiency | None | Vitamin D Capsules |

| 9 | 9 | Chronic Back Pain | None | Diclofenac |

| 10 | 10 | Seasonal Allergies | Pollen | Cetirizine |

+-----------+-----------+----------------------+-----------+--------------------+

10 rows in set (0.00 sec)

+-------------+-----------+----------+------------+-------------+

| EncounterID | PatientID | DoctorID | Date | Type |

+-------------+-----------+----------+------------+-------------+

| 1 | 1 | 1 | 2025-01-01 | Appointment |

| 2 | 2 | 2 | 2025-01-02 | Admission |

| 3 | 3 | 3 | 2025-01-03 | Appointment |

| 4 | 4 | 4 | 2025-01-04 | Appointment |

| 5 | 5 | 5 | 2025-01-05 | Admission |

| 6 | 6 | 1 | 2025-01-06 | Appointment |

| 7 | 7 | 2 | 2025-01-07 | Discharge |

| 8 | 8 | 3 | 2025-01-08 | Appointment |

| 9 | 9 | 4 | 2025-01-09 | Admission |

| 10 | 10 | 5 | 2025-01-10 | Appointment |

+-------------+-----------+----------+------------+-------------+

10 rows in set (0.00 sec)

+--------+-----------+---------------------+-----------------------+------------+

| TestID | PatientID | TestType | Result | TestDate |

+--------+-----------+---------------------+-----------------------+------------+

| 1 | 1 | Blood Test | Normal | 2025-01-01 |

| 2 | 2 | X-Ray | Fracture Detected | 2025-01-02 |

| 3 | 3 | MRI | No Abnormalities | 2025-01-03 |

| 4 | 4 | ECG | Irregular Heartbeat | 2025-01-04 |

| 5 | 5 | CT Scan | Migraine Indicators | 2025-01-05 |

| 6 | 6 | Bone Density | Osteoporosis Detected | 2025-01-06 |

| 7 | 7 | Thyroid Panel | Elevated TSH | 2025-01-07 |

| 8 | 8 | Vitamin D Test | Deficiency Detected | 2025-01-08 |

| 9 | 9 | Liver Function Test | Normal | 2025-01-09 |

| 10 | 10 | Allergy Test | Pollen Allergy | 2025-01-10 |

+--------+-----------+---------------------+-----------------------+------------+

10 rows in set (0.00 sec)

+----------------+-----------+----------+--------------------+--------------------+-----------------+------------+

| PrescriptionID | PatientID | DoctorID | Medication | Dosage | DispenseDetails | Date |

+----------------+-----------+----------+--------------------+--------------------+-----------------+------------+

| 1 | 1 | 1 | Atenolol | 50 mg daily | 30 Tablets | 2025-01-01 |

| 2 | 2 | 2 | Metformin | 500 mg twice daily | 60 Tablets | 2025-01-02 |

| 3 | 3 | 3 | Albuterol | 2 puffs as needed | 1 Inhaler | 2025-01-03 |

| 4 | 4 | 4 | Iron Supplements | 1 tablet daily | 30 Tablets | 2025-01-04 |

| 5 | 5 | 5 | Paracetamol | 500 mg as needed | 20 Tablets | 2025-01-05 |

| 6 | 6 | 1 | Ibuprofen | 400 mg twice daily | 30 Tablets | 2025-01-06 |

| 7 | 7 | 2 | Methimazole | 5 mg daily | 30 Tablets | 2025-01-07 |

| 8 | 8 | 3 | Vitamin D Capsules | 1 capsule weekly | 4 Capsules | 2025-01-08 |

| 9 | 9 | 4 | Diclofenac | 50 mg daily | 30 Tablets | 2025-01-09 |

| 10 | 10 | 5 | Cetirizine | 10 mg as needed | 10 Tablets | 2025-01-10 |

+----------------+-----------+----------+--------------------+--------------------+-----------------+------------+

10 rows in set (0.00 sec)

+-------------+-----------+----------+---------------------+---------------+

| ProcedureID | PatientID | DoctorID | ProcedureName | ProcedureDate |

+-------------+-----------+----------+---------------------+---------------+

| 1 | 1 | 1 | Angioplasty | 2025-01-15 |

| 2 | 2 | 2 | Fracture Repair | 2025-01-16 |

| 3 | 3 | 3 | Lung Function Test | 2025-01-17 |

| 4 | 4 | 4 | Blood Transfusion | 2025-01-18 |

| 5 | 5 | 5 | Migraine Therapy | 2025-01-19 |

| 6 | 6 | 1 | Knee Surgery | 2025-01-20 |

| 7 | 7 | 2 | Thyroidectomy | 2025-01-21 |

| 8 | 8 | 3 | Vitamin D Injection | 2025-01-22 |

| 9 | 9 | 4 | Back Surgery | 2025-01-23 |

| 10 | 10 | 5 | Allergy Testing | 2025-01-24 |

+-------------+-----------+----------+---------------------+---------------+

10 rows in set (0.00 sec)