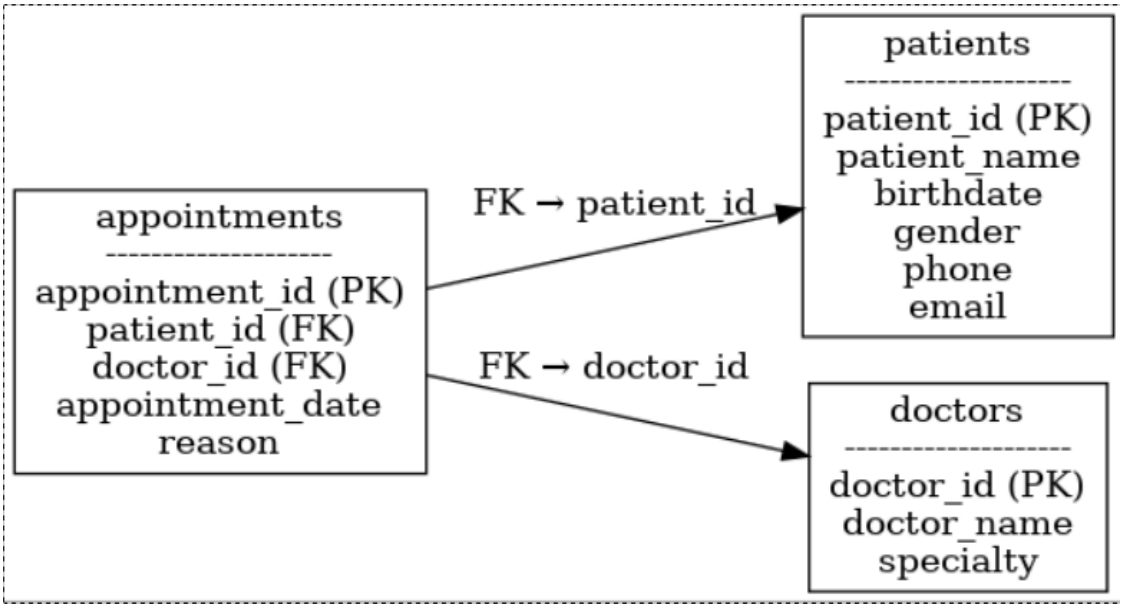
Healthcare Database Project (MySQL)

This project demonstrates the design and implementation of a **Healthcare Management Database** using MySQL. The database is designed to manage **patients, doctors, and their appointments**, and can serve as a simpl eexample of relational database design for healthcare systems.

■ Entity-Relationship Diagram (ERD)



■ Database Structure

The database consists of three main tables:

- **patients**: stores patient personal details.
- **doctors**: stores doctor details and specialties.
- **appointments**: connects patients with doctors through appointment scheduling.

■ SQL Script

```
- - DATABASE CREATION
CREATE DATABASE healthcare;
USE healthcare;

- - PATIENT TABLE
CREATE TABLE patients (
	patient_id INT AUTO_INCREMENT PRIMARY KEY,
	patient_name VARCHAR(100) NOT NULL,
	birthdate DATE,
	gender ENUM('Male', 'Female', 'Other'),
	phone VARCHAR(20),
	email VARCHAR(100)
) ;

- - DOCTORS' TABLE
CREATE TABLE doctors (
	doctor_id INT AUTO_INCREMENT PRIMARY KEY,
	doctor_name VARCHAR(100) NOT NULL,
	specialty VARCHAR(150)
) ;

- - APPOINTMENT TABLE
CREATE TABLE appointments (
	appointments_id INT AUTO_INCREMENT PRIMARY KEY,
	patient_id INT,
	doctor_id INT,
	appointment_date DATETIME NOT NULL,
	reason TEXT,
	FOREIGN KEY (patient_id) REFERENCES patients(patient_id),
	FOREIGN KEY (doctor_id) REFERENCES doctors(doctor)id)
) ;

- - PATIENT DATA ENTRY
INSERT INTO patients (patient_name, birthdate, gender, phone, email
VALUES
('John Papas', '1985-06-15', 'Male', '2101234567', 'johnpapas@example.com'),
('Maria Gewrgiou', '1992-11-05', 'Female', '2107654321', 'mariagew@example.com);

- - DATA ENTRY FOR DOCTORS
INSERT INTO doctors (doctor_name, specialty)
VALUES
('Dr. Nick Iwannou', 'Cardiologist'),
('Dr. Helen Smith', 'Dermatologist');
```

```
- - DATA ENTRY INTO APPOINTMENTS
INSERT INTO appointments (patient_id, doctor_id, appointment_date, reason)
VALUES
(1,1, '2025-09-20 10:30:00', 'Annual audit'),
(2,2, '2025-09-21 14:00:00', 'Dermatological examination');

- - EXAMPLE QUERIES

- SHOW ALL PATIENTS
SELECT * FROM patients;

- - SHOW ALL DOCTORS
SELECT * FROM doctors;

- - SHOW ALL APPOINTMENTS WITH PATIENT AND DOCTORS NAME
SELECT a.appointments_id, p.patient_name AS patient, d.doctor_name AS doctor ,a.appointment_date, a.reason
FROM appointments a
JOIN patients p ON a.patient_id = p.patient_id
JOIN doctors d ON a.doctor_id = d.doctor_id;
```

■ Conclusion

This project demonstrates how to design a normalized relational database for healthcare management. It can be extended with more features such as prescriptions, billing, or electronic medical records. **Portfolio Value:** This project highlights database design, SQL scripting, and documentation skills, making it suitable for inclusion in a professional portfolio