

Java for patient Registration

```
import java.sql.Connection;
import java.sql.DriverManager;
import java.sql.PreparedStatement;
import java.sql.SQLException;

public class PatientRegistration {
    public static void main(String[] args) {
        String jdbcUrl = "jdbc:mysql://localhost:3306/hospital_db";
        String username = "root";
        String password = "password";

        try (Connection connection = DriverManager.getConnection(jdbcUrl, username,
password)) {
            String sql = "INSERT INTO patients (patient_id, name, age, gender, contact) VALUES (?,
?, ?, ?, ?)";
            PreparedStatement statement = connection.prepareStatement(sql);
            statement.setInt(1, 1);
            statement.setString(2, "John Doe");
            statement.setInt(3, 30);
            statement.setString(4, "Male");
            statement.setString(5, "123-456-7890");

            int rowsInserted = statement.executeUpdate();
            if (rowsInserted > 0) {
                System.out.println("A new patient was inserted successfully!");
            }
        } catch (SQLException e) {
            e.printStackTrace();
        }
    }
}
```

2. JavaScript (Node.js): Doctor Details

```
const mysql = require('mysql');

const connection = mysql.createConnection({
    host: 'localhost',
    user: 'root',
    password: 'password',
    database: 'hospital_db'
});
```

```
connection.connect();
```

```
const doctorId = 1;
```

```
const query = 'SELECT * FROM doctors WHERE doctor_id = ?';
```

```
connection.query(query, [doctorId], (error, results) => {  
    if (error) throw error;  
    console.log(results);  
});
```

```
connection.end();
```

3. C: Prescription Management

```
#include <stdio.h>
```

```
#include <mysql/mysql.h>
```

```
void addPrescription(int prescription_id, int patient_id, int doctor_id, const char* medicine, const char* dosage) {
```

```
    MYSQL *conn;
```

```
    MYSQL_RES *res;
```

```
    MYSQL_ROW row;
```

```
    char *server = "localhost";
```

```
    char *user = "root";
```

```
    char *password = "password"; /* set me first */
```

```
    char *database = "hospital_db";
```

```
    conn = mysql_init(NULL);
```

```
    /* Connect to database */
```

```
    if (!mysql_real_connect(conn, server, user, password, database, 0, NULL, 0)) {
```

```
        fprintf(stderr, "%s\n", mysql_error(conn));
```

```
        return;
```

```
    }
```

```
    char query[512];
```

```
    sprintf(query, "INSERT INTO prescriptions (prescription_id, patient_id, doctor_id, medicine, dosage) VALUES (%d, %d, %d,  
'%s', '%s')",
```

```
        prescription_id, patient_id, doctor_id, medicine, dosage);
```

```
    /* send SQL query */
```

```
    if (mysql_query(conn, query)) {
```

```
        fprintf(stderr, "%s\n", mysql_error(conn));
```

```
        return;
```

```
    }
```

```
    /* close connection */
```

```
    mysql_close(conn);
```

```
}
```

```
int main() {
```

```
    addPrescription(1, 1, 1, "Amoxicillin", "500mg");
```

```
    return 0;
```

```
}
```

. HTML/CSS/JavaScript (Web Development): Disease Diagnosis

HTML (index.html)

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Disease Diagnosis</title>
  <link rel="stylesheet" href="styles.css">
</head>
<body>
  <h1>Disease Diagnosis</h1>
  <form id="diagnosisForm">
    <label for="symptoms">Enter Symptoms:</label>
    <input type="text" id="symptoms" name="symptoms" required>
    <button type="submit">Diagnose</button>
  </form>
  <div id="diagnosisResult"></div>
  <script src="script.js"></script>
</body>
</html>
```

CSS (styles.css)

```
body {
  font-family: Arial, sans-serif;
  margin: 20px;
}
```

```
h1 {
  color: #333;
}
```

```
form {
  margin-bottom: 20px;
}
```

```
label {
  display: block;
  margin-bottom: 5px;
}
```

```

input {
  width: 100%;
  padding: 8px;
  margin-bottom: 10px;
}

button {
  padding: 10px 15px;
  background-color: #007BFF;
  color: white;
  border: none;
  cursor: pointer;
}

button:hover {
  background-color: #0056b3;
}

#diagnosisResult {
  margin-top: 20px;
}

```

JavaScript (script.js)

```

document.getElementById('diagnosisForm').addEventListener('submit', function (e) {
  e.preventDefault();
  const symptoms = document.getElementById('symptoms').value;
  fetch('/diagnose', {
    method: 'POST',
    headers: {
      'Content-Type': 'application/json'
    },
    body: JSON.stringify({ symptoms })
  })
  .then(response => response.json())
  .then(data => {
    document.getElementById('diagnosisResult').innerText = `Diagnosis: ${data.diagnosis}`;
  })
  .catch(error => console.error('Error:', error));
});

```

Node.js Backend (server.js)

```

const express = require('express');

```

```
const bodyParser = require('body-parser');

const app = express();
const port = 3000;

app.use(bodyParser.json());

app.post('/diagnose', (req, res) => {
  const symptoms = req.body.symptoms;
  let diagnosis;

  // Simple example logic for diagnosis
  if (symptoms.includes('fever') && symptoms.includes('cough')) {
    diagnosis = 'Flu';
  } else {
    diagnosis = 'Unknown';
  }

  res.json({ diagnosis });
});

app.listen(port, () => {
  console.log(`Server running at http://localhost:${port}/`);
});
```

SQL: Database Setup

```
CREATE DATABASE hospital_db;
```

```
USE hospital_db;
```

```
CREATE TABLE patients (
  patient_id INT PRIMARY KEY,
  name VARCHAR(100),
  age INT,
  gender VARCHAR(10),
  contact VARCHAR(20)
);
```

```
CREATE TABLE doctors (
  doctor_id INT PRIMARY KEY,
  name VARCHAR(100),
  specialization VARCHAR(50),
  contact VARCHAR(20)
```

);

```
CREATE TABLE prescriptions (  
  prescription_id INT PRIMARY KEY,  
  patient_id INT,  
  doctor_id INT,  
  medicine VARCHAR(100),  
  dosage VARCHAR(50),  
  FOREIGN KEY (patient_id) REFERENCES patients(patient_id),  
  FOREIGN KEY (doctor_id) REFERENCES doctors(doctor_id)  
);
```