

```
// import javax.swing.*;
// import java.awt.*;
// import java.awt.event.*;
// import java.util.HashMap;

// public class AI6 {
//     private static HashMap<String, String> symptomDiagnosisMap = new HashMap<>();
//     private static void initializeData() {
//         symptomDiagnosisMap.put("fever,cough", "Common Cold or Flu");
//         symptomDiagnosisMap.put("fever,headache,body ache", "Dengue");
//         symptomDiagnosisMap.put("chest pain,difficulty breathing", "Heart Attack");
//         symptomDiagnosisMap.put("nausea,vomiting,stomach pain", "Gastritis");
//         symptomDiagnosisMap.put("fatigue,weight loss", "Diabetes");
//     }

//     private static String getDiagnosis(String symptoms) {
//         String diagnosis = symptomDiagnosisMap.get(symptoms);
//         if (diagnosis == null) {
//             return "Diagnosis not found, please consult a doctor.";
//         }
//         return diagnosis;
//     }

//     public static void main(String[] args) {
//         initializeData();

//         JFrame frame = new JFrame("Hospital Expert System");
//         frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
//         frame.setSize(500, 350);
//         frame.setLayout(new BorderLayout());

//         JPanel panel = new JPanel();
//         panel.setLayout(new GridBagLayout());
//         panel.setBackground(new Color(200, 230, 250));

//         GridBagConstraints gbc = new GridBagConstraints();
//         gbc.insets = new Insets(10, 10, 10, 10);
//         gbc.gridx = 0;
//         gbc.gridy = 0;

//         JLabel titleLabel = new JLabel("Hospital Expert System");
//         titleLabel.setFont(new Font("Arial", Font.BOLD, 18));
//         titleLabel.setForeground(new Color(50, 50, 150));
```

```
// panel.add(titleLabel, gbc);

// gbc.gridx++;
// JLabel instructionLabel = new JLabel("Enter Symptoms (comma separated):");
// instructionLabel.setFont(new Font("Arial", Font.PLAIN, 14));
// panel.add(instructionLabel, gbc);

// gbc.gridx++;
// JTextField symptomField = new JTextField(20);
// symptomField.setFont(new Font("Arial", Font.PLAIN, 14));
// symptomField.setBorder(BorderFactory.createLineBorder(Color.GRAY, 2));
// panel.add(symptomField, gbc);

// gbc.gridx++;
// JButton submitButton = new JButton("Get Diagnosis");
// submitButton.setFont(new Font("Arial", Font.BOLD, 14));
// submitButton.setBackground(new Color(50, 150, 250));
// submitButton.setForeground(Color.WHITE);
// submitButton.setBorder(BorderFactory.createLineBorder(Color.BLUE, 2));
// panel.add(submitButton, gbc);

// JLabel resultLabel = new JLabel("Diagnosis: ", SwingConstants.CENTER);
// resultLabel.setFont(new Font("Arial", Font.BOLD, 14));
// resultLabel.setForeground(new Color(150, 50, 50));
// resultLabel.setBorder(BorderFactory.createEmptyBorder(10, 10, 10, 10));

// frame.add(panel, BorderLayout.CENTER);
// frame.add(resultLabel, BorderLayout.SOUTH);

// submitButton.addActionListener(new ActionListener() {
//     public void actionPerformed(ActionEvent e) {
//         String symptomsInput = symptomField.getText().toLowerCase().trim();

//         if (!symptomsInput.isEmpty()) {
//             String diagnosis = getDiagnosis(symptomsInput);
//             resultLabel.setText("Diagnosis: " + diagnosis);
//         } else {
//             resultLabel.setText("Please enter symptoms.");
//         }
//     }
// });

// frame.setVisible(true);
// }
```

```

// }
import javax.swing.*;
import java.awt.*;
import java.awt.event.*;
import java.util.HashMap;

public class AI6 {
    private static HashMap<String, String> symptomDiagnosisMap = new HashMap<>();

    private static void initializeData() {
        symptomDiagnosisMap.put("fever,cough", "Common Cold or Flu");
        symptomDiagnosisMap.put("fever,headache,body ache", "Dengue");
        symptomDiagnosisMap.put("chest pain,difficulty breathing", "Heart Attack");
        symptomDiagnosisMap.put("nausea,vomiting,stomach pain", "Gastritis");
        symptomDiagnosisMap.put("fatigue,weight loss", "Diabetes");
    }

    private static String getDiagnosis(String symptoms) {
        String diagnosis = symptomDiagnosisMap.get(symptoms);
        if (diagnosis == null) {
            return "Diagnosis not found, please consult a doctor.";
        }
        return diagnosis;
    }

    public static void main(String[] args) {
        initializeData();

        JFrame frame = new JFrame("Hospital Expert System");
        frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
        frame.setSize(500, 350);
        frame.setLayout(new BorderLayout());

        JTextField symptomField = new JTextField(20);
        JButton submitButton = new JButton("Get Diagnosis");
        JLabel resultLabel = new JLabel("Diagnosis: ", SwingConstants.CENTER);

        JPanel panel = new JPanel();
        panel.setLayout(new GridBagLayout());
        panel.setBackground(new Color(200, 230, 250));

        GridBagConstraints gbc = new GridBagConstraints();
        gbc.insets = new Insets(10, 10, 10, 10);
        gbc.gridx = 0;

```

```

gbc.gridx = 0;

JLabel titleLabel = new JLabel("Hospital Expert System");
titleLabel.setFont(new Font("Arial", Font.BOLD, 18));
titleLabel.setForeground(new Color(50, 50, 150));
panel.add(titleLabel, gbc);

gbc.gridx++;
JLabel instructionLabel = new JLabel("Enter Symptoms (comma separated):");
instructionLabel.setFont(new Font("Arial", Font.PLAIN, 14));
panel.add(instructionLabel, gbc);

gbc.gridx++;
symptomField.setFont(new Font("Arial", Font.PLAIN, 14));
symptomField.setBorder(BorderFactory.createLineBorder(Color.GRAY, 2));
panel.add(symptomField, gbc);

gbc.gridx++;
submitButton.setFont(new Font("Arial", Font.BOLD, 14));
submitButton.setBackground(new Color(50, 150, 250));
submitButton.setForeground(Color.WHITE);
submitButton.setBorder(BorderFactory.createLineBorder(Color.BLUE, 2));
panel.add(submitButton, gbc);

resultLabel.setFont(new Font("Arial", Font.BOLD, 14));
resultLabel.setForeground(new Color(150, 50, 50));
resultLabel.setBorder(BorderFactory.createEmptyBorder(10, 10, 10, 10));

frame.add(panel, BorderLayout.CENTER);
frame.add(resultLabel, BorderLayout.SOUTH);

submitButton.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent e) {
        String symptomsInput = symptomField.getText().toLowerCase().trim();
        if (!symptomsInput.isEmpty()) {
            String diagnosis = getDiagnosis(symptomsInput);
            resultLabel.setText("Diagnosis: " + diagnosis);
        } else {
            resultLabel.setText("Please enter symptoms.");
        }
    }
});

frame.setVisible(true);

```

}