

Text Based Adventure Games

```
import java.awt.*;
import java.awt.event.*;
import java.util.HashMap;
public class AdventureGame extends Frame implements
 ActionListener {
    // Components
    Label roomLabel, commandLabel, inventoryLabel;
    TextField commandField, roomField, inventoryField;
    Button enterButton;
    // Game data
    HashMap<String, String> rooms;
    HashMap<String, String> items;
    String currentRoom = "Hall";
    String inventory = "";
    public AdventureGame() {
        // Initialize game data
        initializeRooms();
        initializeItems();
        // Frame properties
        setTitle("Text Adventure Game");
```

```
setSize(450, 300);

setLayout(null);

// Labels

roomLabel = new Label("Current Room:");

commandLabel = new Label("Enter Command:");

inventoryLabel = new Label("Inventory:");

// Text fields

roomField = new TextField();

roomField.setEditable(false);

commandField = new TextField();

inventoryField = new TextField();

inventoryField.setEditable(false);

// Button

enterButton = new Button("Enter");

enterButton.addActionListener(this);

// Positioning components

roomLabel.setBounds(50, 50, 120, 20);

roomField.setBounds(180, 50, 200, 20);

commandLabel.setBounds(50, 90, 120, 20);

commandField.setBounds(180, 90, 200, 20);

inventoryLabel.setBounds(50, 130, 120, 20);
```

```
inventoryField.setBounds(180, 130, 200, 20);
enterButton.setBounds(180, 170, 80, 30);

// Add components
add(roomLabel);
add(roomField);
add(commandLabel);
add(commandField);
add(inventoryLabel);
add(inventoryField);
add(enterButton);

// Set initial room display
updateRoomDisplay();

// Window close event
addWindowListener(new WindowAdapter() {
    public void windowClosing(WindowEvent e) {
        dispose();
    }
});

// Make visible
setVisible(true);
}
```

```
private void initializeRooms() {  
    rooms = new HashMap<>();  
  
    rooms.put("Hall", "You are in the hall. Doors lead east to the  
Kitchen, west to the Library.");  
  
    rooms.put("Kitchen", "You are in the kitchen. A shiny key is here.");  
  
    rooms.put("Library", "You are in the library. It smells old and  
dusty.");  
  
}  
  
private void initializeItems() {  
  
    items = new HashMap<>();  
  
    items.put("Kitchen", "Key");  
  
}  
  
private void updateRoomDisplay() {  
  
    roomField.setText(currentRoom + " - " +  
rooms.get(currentRoom));  
  
    inventoryField.setText(inventory);  
  
}  
  
@Override  
  
public void actionPerformed(ActionEvent e) {  
  
    String command = commandField.getText().toLowerCase().trim();  
  
    switch (command) {  
  
        case "go east":
```

```
    if (currentRoom.equals("Hall")) currentRoom = "Kitchen";  
    break;  
  
    case "go west":  
        if (currentRoom.equals("Hall")) currentRoom = "Library";  
        break;  
  
    case "go back":  
        currentRoom = "Hall";  
        break;  
  
    case "take key":  
        if (currentRoom.equals("Kitchen")) {  
            inventory = "Key";  
            items.remove("Kitchen");  
        }  
        break;  
  
    default:  
        roomField.setText("Invalid Command!");  
        return;  
    }  
  
    updateRoomDisplay();  
    commandField.setText("");  
}
```

```
public static void main(String[] args) {  
    new AdventureGame();
```

