

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();  
}
```

