

EXPLORE INN

HOTEL MANAGEMENT SYSTEM

SANSITA
22011101049

KARTHIKA
22011101052



JAVA INN SIGHTS

OUR TEAM

SANSITA

22011101049

- HomePage
- LoginPage
- AboutPage

KARTHIKA

22011101052

- SelectHotel
- BookingWindow
- HelpPage

INTRODUCTION

Explore Inn is a software application that provides an integrated solution for managing various aspects of a hotel's operations. It streamlines and automates a wide range of tasks, helping hotel staff and management deliver efficient and high-quality services to guests.

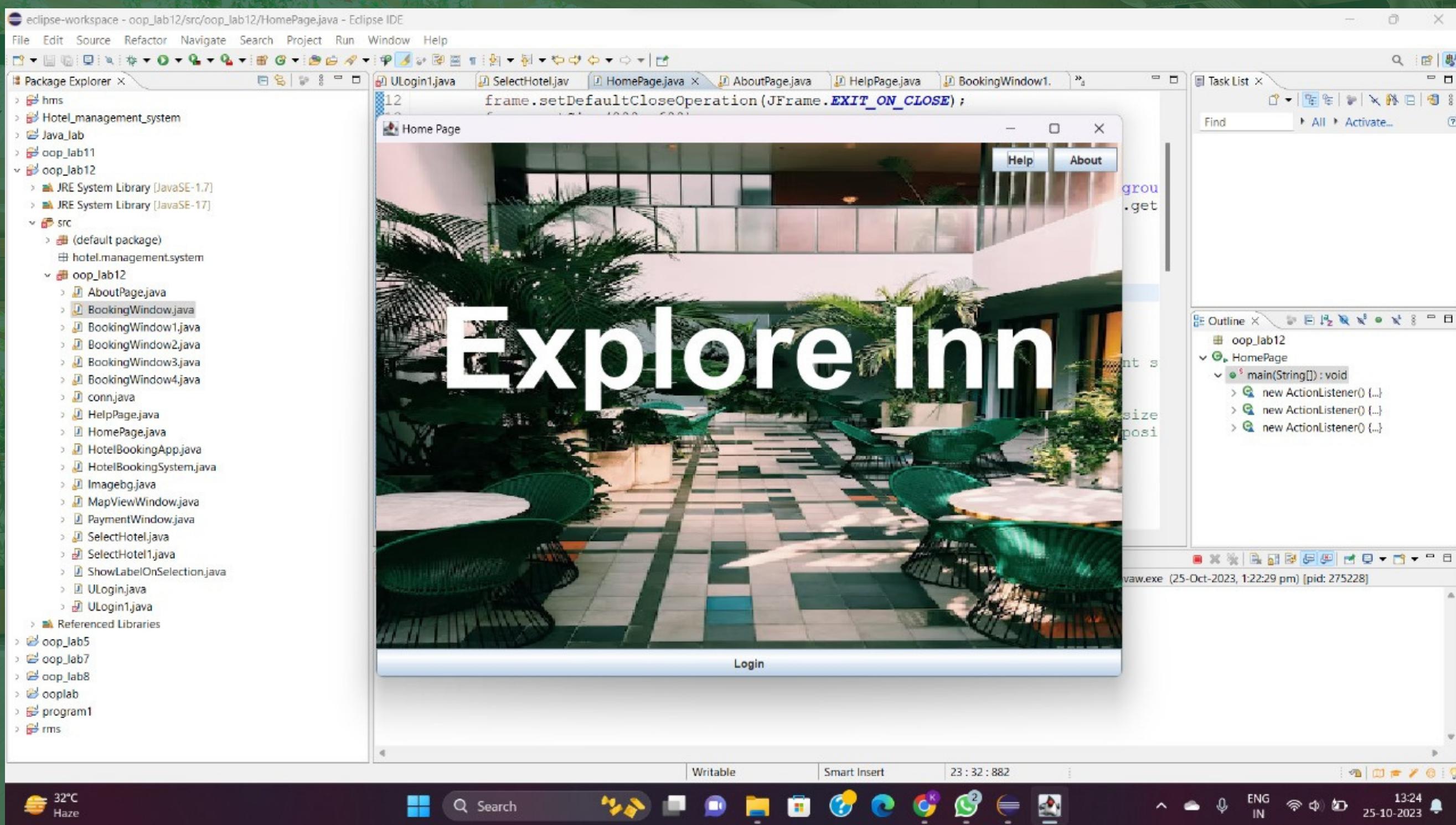
Features:

- User Authentication and Access Control
- Reservation Management
- Billing
- Inventory Management
- Online Booking and Payment
- Integration
- User Interfaces
- Database Management using HeidiSQL
- Error Handling and Logging

HOME PAGE

- Swing Library: The javax.swing package is used for creating graphical user interface (GUI) components.
- AWT Library: The java.awt package is used for creating and managing the GUI components.
- Event Handling: The code uses event handling for button clicks using ActionListener and ActionEvent.
- JFrame: A class from Swing that provides the main window for the GUI application.
- JLabel: Used to display a short string or an image icon.
- JPanel: A container that provides space to add other components.
- BorderLayout: A layout manager used to arrange components at the borders (North, South, East, West) and the center of a container.
- ImageIcon: Used to display images.
- ActionEvent and ActionListener: Used for handling events triggered by user actions like button clicks.
- Dimension: Used to set the size of components.
- Insets: Used to create padding around the button.
- Image: Used to handle images.
- Dispose(): Used to close the current window.
- Opaque Property: Used to make the background of the panel transparent to display the background image.

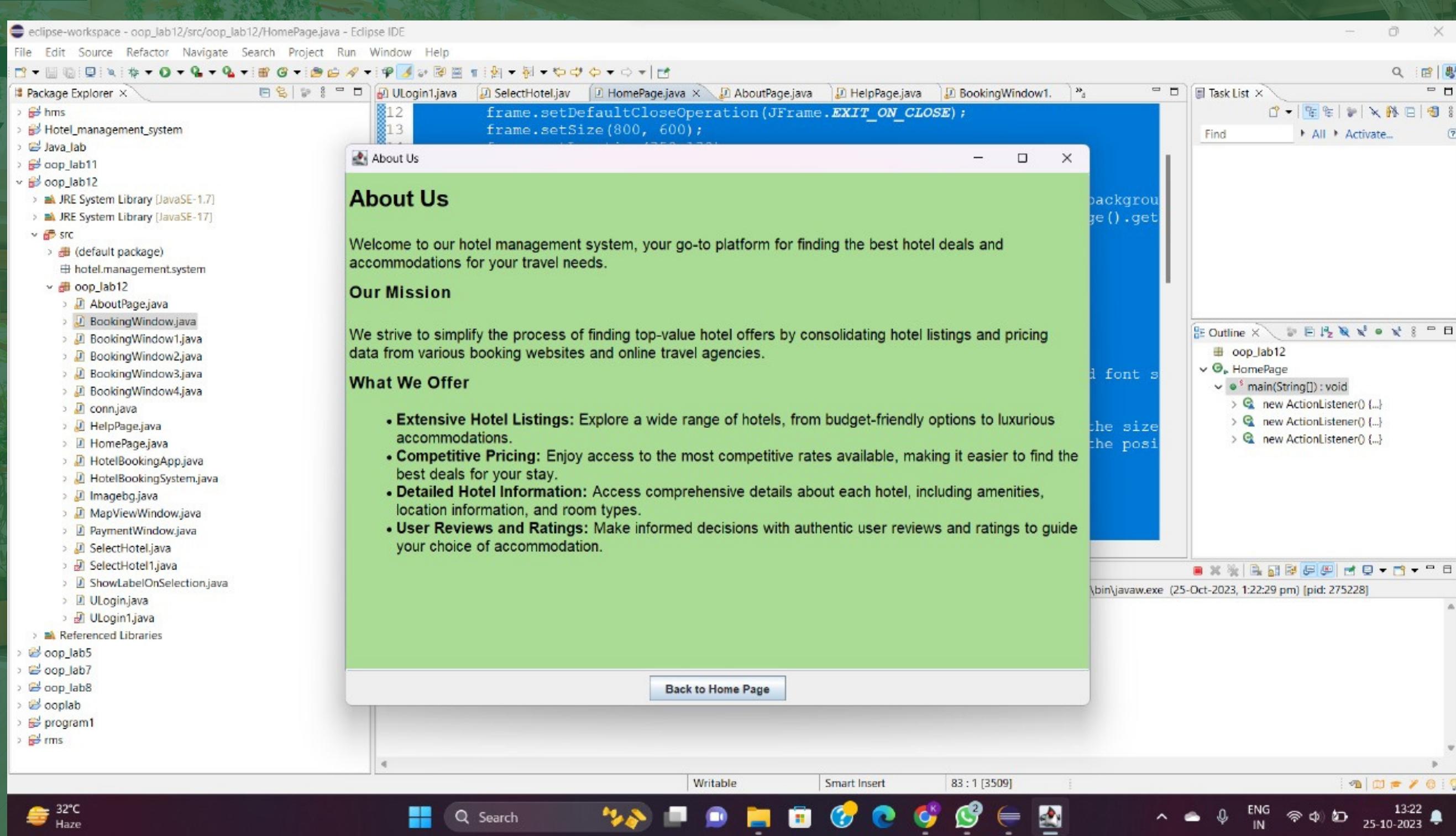
HOME PAGE



ABOUT PAGE

- **Swing GUI Components:** The code utilizes Swing, which is Java's standard library for creating graphical user interfaces (GUI). It employs Swing components such as JFrame, JPanel, JTextPane, JScrollPane, and JButton to design the graphical interface.
- **Event Handling:** Event handling is implemented through ActionListener interfaces associated with buttons. For example, when the "Back to Home Page" button is clicked, the actionPerformed method handles the event and initiates the action of returning to the home page.
- **Layout Management:** BorderLayout to arrange components within the panel. It specifies where components should be placed (e.g., BorderLayout.CENTER, BorderLayout.SOUTH) to achieve the desired layout.
- **Method Overriding:** The paintComponent method is overridden in both JPanel and JTextPane to customize their appearance.
- **Frame Creation and Configuration:** Creates a JFrame, configures its properties (such as title, size, and location), and adds a JPanel to it for displaying the user interface.
- **Component Hierarchy:** Components like JPanel, JTextPane, and JButton are organized hierarchically within the JFrame.
- **Event-Driven Programming:** User actions (e.g., button clicks) trigger events that are handled by the associated event listeners.

ABOUT PAGE



HELP PAGE

- **Swing Components:** Utilizes Swing components like JFrame, JPanel, JTextPane, JScrollPane, and JButton for the user interface.
- **Event Handling:** Implements event handling with ActionListener interfaces for button interactions.
- **Custom Painting:** Customizes the appearance with background colors for JPanel and JTextPane.
- **HTML Content:** Displays richly formatted HTML content in JTextPane.
- **Anonymous Classes:** Employs anonymous inner classes for ActionListener interfaces to handle button events.
- **Method Overriding:** Overrides the paintComponent method for JPanel and JTextPane to achieve custom visual effects.
- **Frame Creation and Configuration:** Creates and configures a JFrame, specifying its title, size, and position.
- **Component Hierarchy:** Organizes components hierarchically within the JFrame for structured interaction.
- **Event-Driven Programming:** Follows an event-driven model where user actions trigger event listeners for responsive interfaces.

HELP PAGE

The screenshot shows the Eclipse IDE interface with a help page open. The title bar reads "eclipse-workspace - oop_lab12/src/oop_lab12/HomePage.java - Eclipse IDE". The central window displays a "Help" page with the following content:

Help

Frequently Asked Questions (FAQs)

Q: How can I change or cancel my reservation?
A: You can change or cancel your reservation by contacting our customer support or through your account on our website.

Q: Are there any additional fees for using your services?
A: No, our services are free to use. We do not charge any additional fees.

Contact Support

If you need further assistance, please feel free to contact our support team at:

Email: support@exploreinn.com
Phone: +1 (800) 123-4567

At the bottom of the help page is a "Back to Home Page" button.

The left sidebar shows the "Package Explorer" with the project structure:

- eclipse-workspace - oop_lab12/src/oop_lab12/HomePage.java - Eclipse IDE
- File Edit Source Refactor Navigate Search Project Run Window Help
- Package Explorer
- ULogin1.java SelectHotel.java HomePage.java AboutPage.java HelpPage.java BookingWindow1.java
- 12 frame.setDefaultCloseOperation(JFrame.EXIT_ON_CLOSE);
- Help
- src
 - (default package)
 - hotel.management.system
 - oop_lab12
 - AboutPage.java
 - BookingWindow.java
 - BookingWindow1.java
 - BookingWindow2.java
 - BookingWindow3.java
 - BookingWindow4.java
 - conn.java
 - HelpPage.java
 - HomePage.java
 - HotelBookingApp.java
 - HotelBookingSystem.java
 - Imagebg.java
 - MapViewWindow.java
 - PaymentWindow.java
 - SelectHotel.java
 - SelectHotel1.java
 - ShowLabelOnSelection.java
 - ULogin.java
 - ULogin1.java
 - Referenced Libraries
- oop_lab5
- oop_lab7
- oop_lab8
- ooplab
- program1
- rms

LOGIN PAGE

- **Swing GUI Components:** Utilizes Swing components like JLabel, JTextField, JPasswordField, and JButton to create a login window.
- **Event Handling:** Implements event handling with the ActionListener interface for buttons like "Login" and "Home."
- **Database Connectivity:** Connects to a MySQL database using JDBC to verify user login credentials.
- **Custom Painting:** Sets a background image using the ImagePanel class for aesthetic enhancement.
- **Layout Management:** Employs a null layout for precise component positioning.
- **Swing Styling:** Styles Swing components for an aesthetically pleasing user interface.
- **Exception Handling:** Catches and manages errors during database operations and UI interactions which is SQLClassException
- **Multi-Layered Application:** Organizes code into distinct layers for UI, event handling, and database interaction.
- **ActionListener within ActionListener:** Unusual approach to transition to a new window after successful login.
- **Dynamic Window Creation:** Creates and configures JFrame windows for login and post-login interfaces.

LOGIN PAGE

LOG IN

Username hello

Password

LOG IN

Username abc

Password ...

Message
Invalid login
OK

Login Home

Login Home

LOGIN PAGE

The screenshot shows the HeidiSQL interface connected to a MySQL database named 'hms'. The 'user_login' table is selected, displaying two rows of data:

username	password
karthika	karthika
hello	hello

The bottom pane shows the SQL query used to retrieve the data:

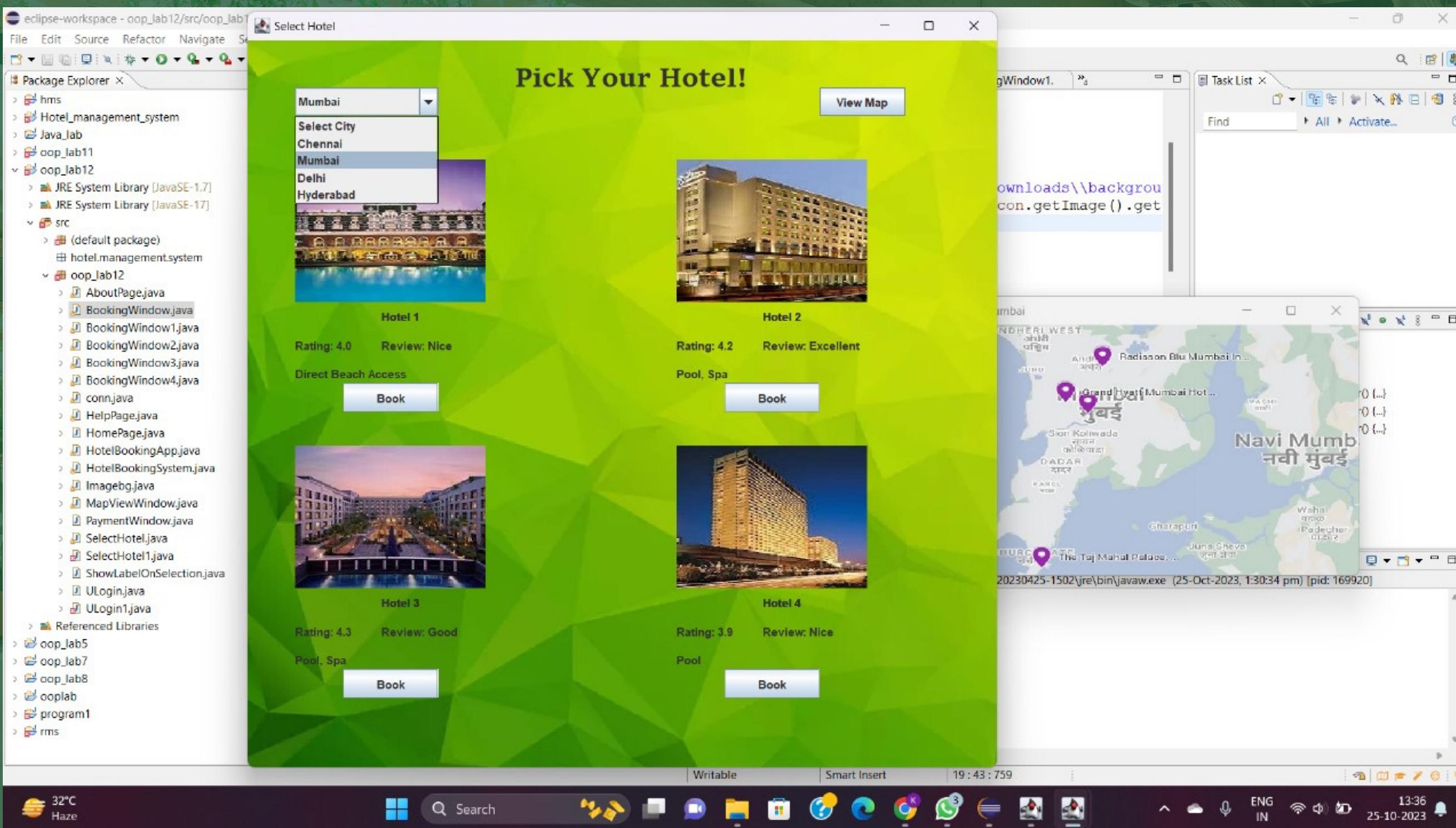
```
40 SHOW CREATE TABLE `hms`.`hotel`;
41 SELECT * FROM `hms`.`hotel` LIMIT 1000;
42 SHOW CREATE TABLE `hms`.`user_login`;
43 SELECT * FROM `hms`.`user_login` LIMIT 1000;
```

The system tray at the bottom indicates the weather is 32°C Haze, and the date and time are 25-10-2023 13:38.

SELECT HOTEL

- **Swing GUI Components:** Utilizes Swing components like JFrame, JPanel, JLabel, JButton, and JComboBox for hotel selection.
- **Event Handling:** Implements event handling with the ActionListener interface for buttons and combo box selections.
- **Custom Painting:** Overrides paintComponent to set a background image.
- **Arrays and Loops:** Utilizes arrays and loops to display hotel information for different cities.
- **Conditional Statements:** Employs if and else if statements to display information based on the selected city.
- **ActionListeners within ActionListeners:** Handles dynamic hotel booking.
- **Swing Styling:** Styles Swing components by setting fonts, colors, bounds, and text.
- **Window Management:** Opens a new window for viewing city maps, demonstrating window interaction.

SELECT HOTEL



BOOKING WINDOW

- Swing and AWT: Used for creating GUI elements like buttons, labels, and windows.
- JDBC: Establishes a connection with a MySQL database and handles SQL operations.
- JFrame and Components: Constructs the main application window and adds various GUI components.
- Event Handling: Implements event listeners for user interactions, such as button clicks.
- JDateChooser, JSpinner, JComboBox: Utilized for date selection, quantity selection, and dropdown menus.
- JLabel: Displays text and images within the GUI.
- Exception Handling: Manages potential errors during database interactions using try-catch blocks.
- Date Formatting: Uses SimpleDateFormat to format dates for SQL queries.
- User Feedback: Displays pop-up messages using JOptionPane to communicate application status.
- Button and Window Management: Controls application functionality and window behavior.
- GUI Styling: Applies custom fonts, colors, and styles to the GUI components.

BOOKING WINDOW

The screenshot shows a MySQL database interface in HeidiSQL. The database is named 'hms' and contains a table named 'booking_details'. The table has columns: Check-In_Date, Check-Out_Date, Adults, Children, Room_Type, and No._of_Rooms. The data shows various bookings for different dates, room types, and room counts.

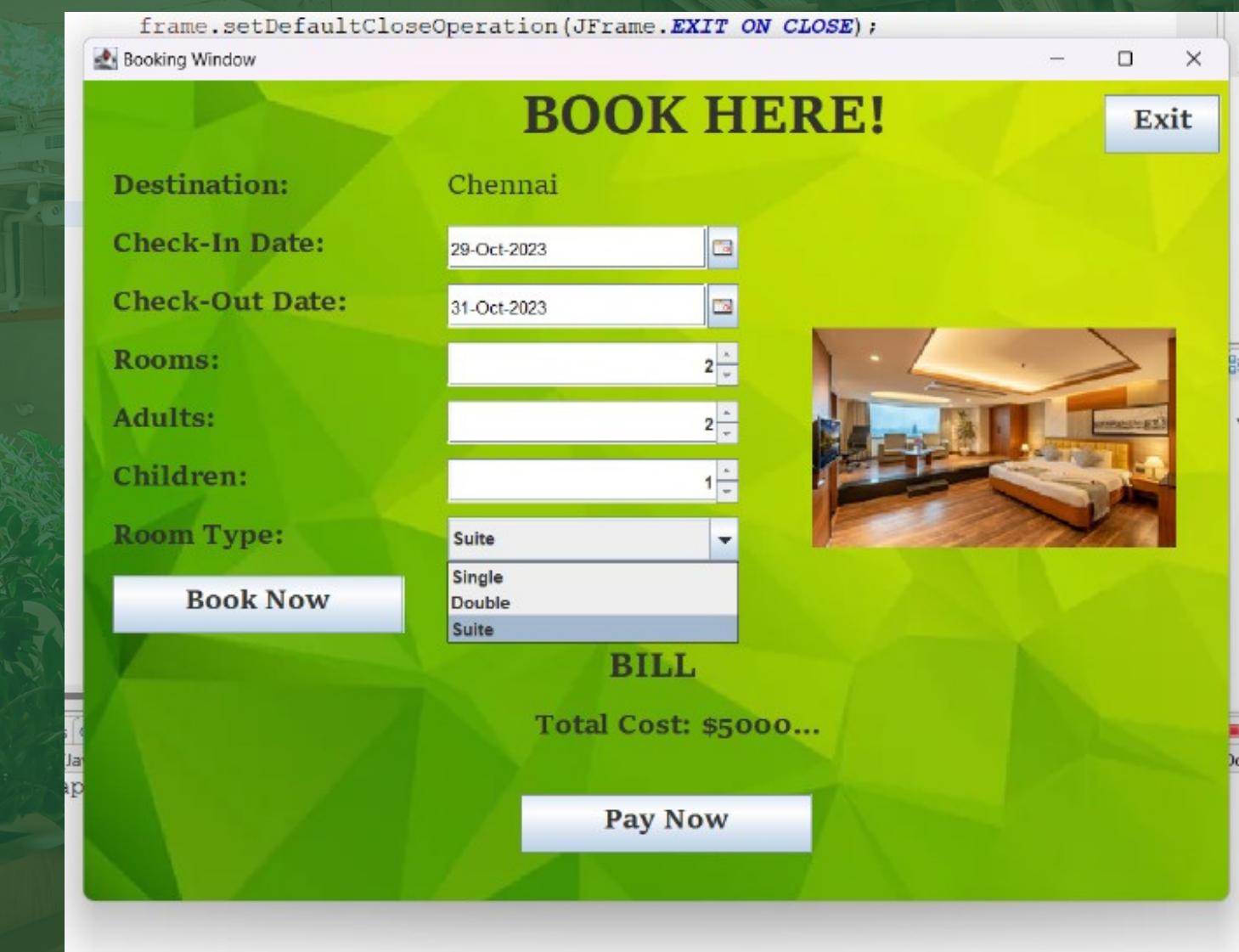
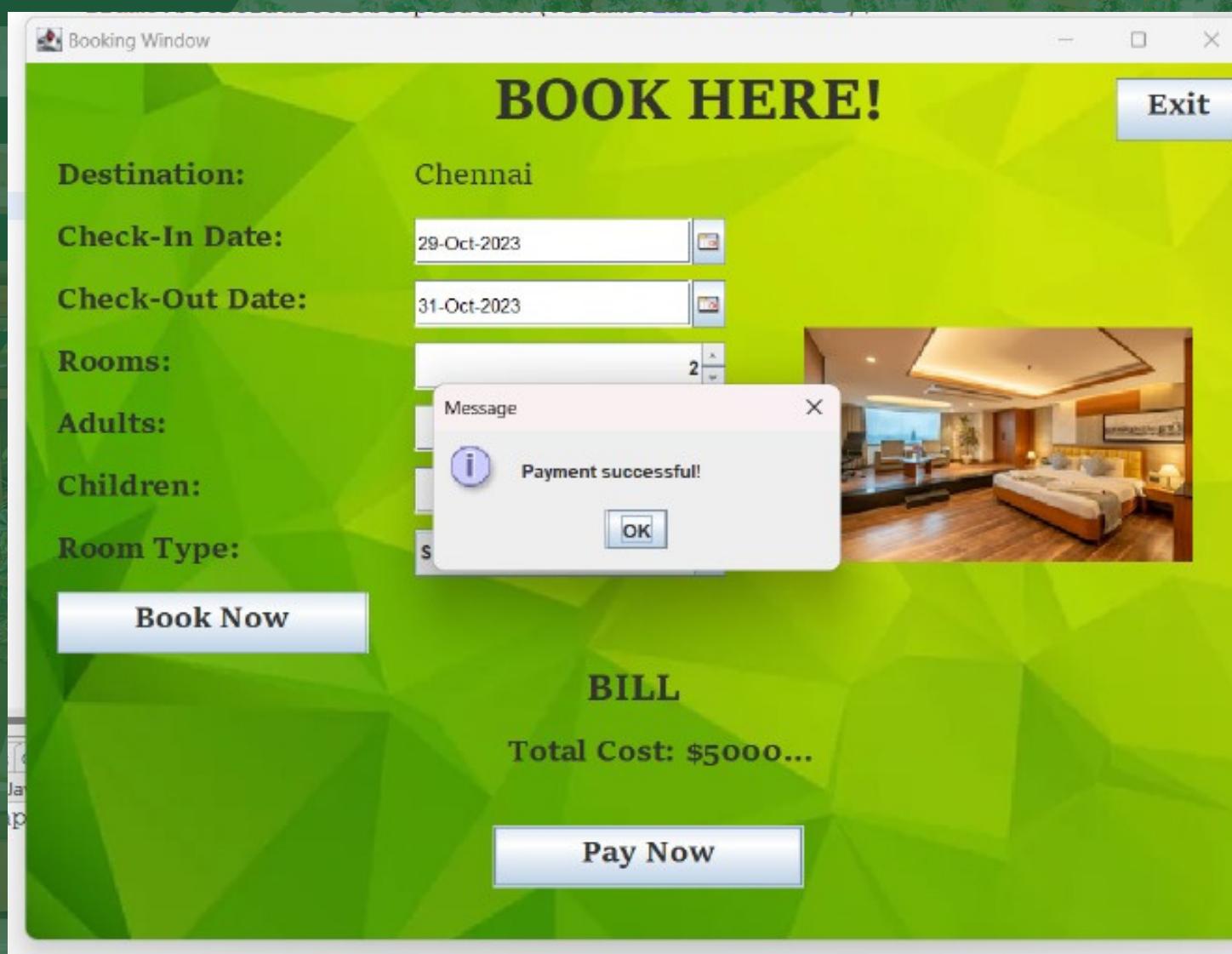
Check-In_Date	Check-Out_Date	Adults	Children	Room_Type	No._of_Rooms
2023-10-25	2023-10-28	2	1	Single	1
2023-10-25	2023-10-28	2	1	Double	2
2023-10-26	2023-10-28	2	1	Single	1
2023-10-30	2023-10-31	4	2	Suite	2
2023-10-26	2023-10-28	2	1	Suite	1
2023-10-26	2023-10-29	2	1	Double	2
2023-10-27	2023-10-28	1	1	Single	2
2023-10-27	2023-10-28	2	2	Double	1
2023-10-28	2023-10-30	2	1	Double	1
2023-10-29	2023-10-31	2	1	Suite	2

Below the table, there is a SQL query window with the following code:

```
47 SELECT * FROM information_schema.KEY_COLUMN_USAGE WHERE TABLE_SCHEMA='hms' AND TABLE_NAME='booking_details' AND REFERENCED_TABLE_NAME IS NOT NULL;
48 SHOW CREATE TABLE `hms`.`booking_details`;
49 SELECT tc.CONSTRAINT_NAME, cc.CHECK_CLAUSE FROM `information_schema`.CHECK_CONSTRAINTS AS cc, `information_schema`.TABLE_CONSTRAINTS AS tc WHERE tc.CONSTRAINT_SCHEMA='hms' AND tc.TABLE_NAME='booking_details' AND tc.CONSTRAINT_TYPE='CHECK';
50 SELECT * FROM `hms`.`booking_details` LIMIT 1000;
```

The status bar at the bottom shows the following information: r1 : c1, Connected: 00:01 h, MySQL 8.0.34, Uptime: 8 days, 04:30 h, Server time: 13:39, Idle, 32°C Haze, ENG IN, 25-10-2023, 13:39.

BOOKING WINDOW



THANK YOU

