Dhirubhai Ambani

Institute of Information and Communication Technology

IT314 – Software Engineering
GROUP – 9

Use Case Documentation

STAYEAZY – HOTEL BOOKING SYSTEM

Instructor: Prof. Saurabh T.   December 02, 2024

Use Case Description:

Use Case 1: Login

Name: Login

Actor(s):
- User (Customer, Manager)

Preconditions:
- The user must have an registered account.(Manually or by Google)

Postconditions:
- The user is successfully logging in and have gained access to the system's features.

Main Flow:
1. **User Action:** The user navigates to the login page.
   System Response: Displays the login form with the following options:
   - **Option 1:** Sign In Manually using Email and Password.
   - **Option 2:** Sign In with Google.
   - **Option 3:** Forgot your Password.

2. **Option 1:** Sign In Manually using Email and Password.
   - **User Action:** The user enters their registered email and password and may or may not select remember me.
   - **System Response:** Verifies the credentials. If correct, redirects the user to the dashboard and also saves the user details for future if remember me is selected.

3. **Option 2:** Sign In with Google.
   - **User Action:** The user clicks "Login with Google."
   - **System Response:** Redirects the user to the Google login page.
   - **User Action:** The user selects their Google account and grants permission.
   - **System Response:** Authenticates the user and logs them into the system and also saves the user details for future if remember me is selected.

Alternative Flow:

- **Invalid Email/Password (Manual Login):**
  1. The system detects incorrect email or password.
  2. The system shows an error message.

- **Google Authentication Failed:**
  1. The user cancels Google login or the authentication fails.
  2. The system displays an error message.

Scenario:

1. A user navigates to the login page and enters their email and password. Upon successful verification, they are redirected to the dashboard.
2. A user attempts to log in with an incorrect password. The system displays an error message: "Invalid email or password."
3. A user selects "Login with Google," authenticates their Google account, and is redirected to the dashboard.
4. A user cancels the Google login process. The system displays an error message: "Google login failed."

Use Case 2: Sign Up

Name: Sign Up

Actor(s):
- External User

Preconditions:
- The user must not have an already registered account.

Postconditions:
- A new user account is successfully created and the user is able to login.

Main Flow:
1. **User Action:** The user navigates to the "Sign up" page.
   System Response: Displays the sign-up form with the following options:
   - **Option 1:** : Sign up manually by entering First name, Last name, email, Mobile number and password.

2. **Option 1:** Sign up manually by entering First name, Last name, email, Mobile number and password.
   - **User Action:** The user fills in the fields for username, email, and password, then submits the form.
   - **System Response:** Validates the data (e.g. password is at least 8 characters long and other requirements). Creates the account. Redirects the user to the login page with a success message: "Account created successfully."

Alternative Flow:

- **Invalid Input :**

  1. The system detects invalid input (like for Password, it must contain at least one uppercase letter, one lowercase letter, one digit, one special character, and be at least 8 characters long)
  2. The system shows an error message.

Scenario:

1. A new user navigates to the "Sign Up" page, fills out the form with valid details, and successfully creates an account. They are redirected to the login page with a success message.
2. A user enters an invalid password (e.g., fewer than 8 characters). The system displays an error message.

Use Case 3: Search Hotel

Name: Search Hotel

Actor(s):
- User (Customer)

Preconditions:
- The user must access the search page.
- Relevant data (e.g., city, dates, and guest count) must be available for the search query.

Postconditions:
- Search results matching the user's criteria are displayed.
- If no results are found, "Failed to fetch search results" message is displayed.

Main Flow:
1. **User Action:** The user navigates to the "Search for Accommodation" page.
   System Response: Displays the search form with the following fields:
   - Location (text input with placeholder "Enter city").
   - Check-in date (date picker).
   - Check-out date (date picker).
   - Number of guests (dropdown).

2. **User Action:** The user fills in the required details and clicks the "Search" button.
   System Response:
   - Validates the input
   - Sends a search request to the server with the entered criteria.
   - Displays the search results on success.

Alternative Flow:
- **Missing or Invalid Input:**
  1. The user enters invalid data.
  2. Displays an error message indicating the missing/invalid input.

- **No Results Found:**
  - The search returns no matches for the given criteria.
  - **System Response:** Displays a message like "No results found for your criteria. Try modifying your search."
- **System Error:**
  - The search request fails due to a server or network issue.
  - **System Response:** Displays an error message (e.g., "Failed to fetch search results").

Scenario:

1. A user enters the city, check-in/check-out dates, and guest count, then clicks "Search." The system displays a list of matching accommodations.
2. A user enters invalid input (e.g., a blank city field). The system displays an error message: "Failed to fetch search results"
3. No results match the user's search criteria. The system displays a message: "Failed to fetch search results."

Use Case 4: Booking Hotel

Name: Booking Hotel

Actor(s):
- User (Customer)

Preconditions:
- The user must be logged into the system.
- The user must have selected an accommodation from the search results.
- The selected accommodation must have available rooms for the chosen dates.

Postconditions:
- The booking is successfully done.
- The selected room is reserved for the user.

Main Flow:
1. **User Action:** The user clicks on a specific accommodation from the search results.
   System Response: Displays the booking page with the following details:
   - Accommodation name, description, and address.
   - Date of Stay.
   - Price.

2. **User Action:** The user selects checkin and checkout dates, reviews the booking details, and clicks the "Book Now" button.
   System Response:
   - Redirects the user to the **Booking Details Page** with the following fields:
     1. Pre-filled details.
     2. Input fields for other details.

3. **User Action:**The user fills in their personal details and clicks the "Book" button to confirm the booking.
   System Response:
   Validates the input data (e.g., valid email and phone number).
   Processes the booking request.

Alternative Flow:

1. **Invalid Input:**
   - **User action:** The user enters incomplete or invalid details in the booking form (e.g., invalid email format or missing phone number).

  - **System Response:** Highlights the invalid fields and displays an error message (e.g., "Please provide valid details.").
2. **Room Unavailability:**
     - **User action:** The selected room becomes unavailable after the user clicks "Book Now."
     - **System Response:** Displays an error message like "The selected room is no longer available. Please choose another option."
3. **Cancellation During Booking Process:**
     - **User action:** The user decides not to proceed with the booking and navigates away from the Booking Details Page.
     - **System Response:** Discards the booking data and redirects the user to the previous page (e.g., search results or accommodation summary).

Scenario:

1. A user selects a hotel from the search results, reviews the booking details, and successfully completes the booking. The system displays a confirmation message.
2. A user enters invalid personal details (e.g., an incorrect email format). The system displays an error message.
3. The room becomes unavailable after the user clicks "Book Now." The system displays an error message.

Use Case 5: Profile Management

Name: Profile Management

Actor(s):
  - User (Customer)

Preconditions:
  - The user must be logged into the system.
  - The user must have an existing profile with pre-filled information stored in the system.

Postconditions:
  - The user's updated profile is saved successfully.
  - The changes are reflected in the profile, and the user can see the updated details.

Main Flow:

Viewing Profile:

1. **User Action:** The user navigates to the Profile Page (e.g., by clicking on their profile picture or a navigation menu).
   System Response: Displays the user's profile information, including:

   - First Name
   - Last Name
   - Email
   - Mobile Number
   - User Type

   Provides 3 Action Buttons

   - **Return to Home** (Navigates back to the homepage).
   - **Edit Profile** (Opens the editing interface).
   - **Booking History** (Navigates to a page showing the user's previous bookings).

Editing Profile:

1. **User Action:** The user clicks the "Edit Profile" button.
   System Response: Displays an editable form pre-filled with the user's current details.

2. **User Action:** The user modifies any of the fields (e.g., First Name, Last Name, Email, Mobile Number).
   The user clicks the **"Update Profile"** button.
   System Response: Validates the input data (e.g., valid email format and phone number).
   - Validates the input data
   - Updates the profile in the database.
   - Displays a success message: "Profile updated successfully."
   - Redirects the user back to the **Profile Page** with updated details displayed.

Alternative Flow:

- **Invalid Input:**
    i. **User Action:** The user enters invalid details (e.g., invalid email or phone number format).

ii. **System Response:** Highlights the invalid fields and displays an error message (e.g., "Please enter a valid email address.").

Scenario:

1. A user navigates to their profile page, updates their email address, and clicks "Update Profile." The system validates the input and saves the changes, displaying a success message.
2. A user enters an invalid details while editing their profile. The system displays an error message.A user views their booking history from the profile page and navigates back to the homepage.

Use case 6:View Booking History

Name:View Booking History

- **Actor(s):** Logged-in users.
- **Preconditions:** The user must be logged in and have prior bookings associated with their account.
- **Postconditions:** The system displays a detailed list of previous bookings, including information such as hotel name, booking date, check-in/check-out dates, status, and total payment made.

Main Flow:

User Action: Users navigate to the "Booking History" section.

System Response:

1. The system fetches booking records from the database linked to their account.

   2.The list is displayed, typically sorted by the most recent booking or by other preferences.

Alternative Flow:

No results found: If no booking history exists, the system shows a message like: "No Booking history available."

Scenario:

1. A user logs into their account to check the details of a past trip.
2. The system displays all previous bookings.
3. The user views specific details, such as the check-in and check-out dates for a stay at a particular hotel.

Use Case 7:Hotel Details Management (Manager)

Name:Hotel Details Management(Manager)

- **Actor(s):** Manager.
- **Preconditions:** The manager must have authenticated access to manage hotel details.
- **Postconditions:** Updated hotel details are saved in the system and reflected on the user interface.

Main Flow:

1. **User Action:** The manager logs into their account and accesses the "Manage Hotel Details" section.
   System Response: The system verifies the manager's credentials and displays a dashboard with editable fields.
2. **User Action:** The manager updates fields like room price, availability, amenities, or uploads new images.
   System Response: The system validates the inputs (e.g., checks that pricing is numeric and fields are not empty).
3. **User Action:** The manager clicks "Save" to confirm changes.
   System Response: The system updates the database, reflects the changes on the website, and shows a confirmation message: "Hotel details updated successfully."

Alternate Flow:

- **User Action:** The manager attempts to save incomplete or invalid data.
  System Response: The system highlights errors in the form and displays a error message.

Scenario:(User Action and System Response)

1. A hotel manager logs in into the system to update room prices for the upcoming holiday season.
2. The manager edits the room rates and adds promotional descriptions.
3. The system saves the changes, which are then visible to the customers immediately.

Use Case 8:Cancellation

Name:Cancellation

- **Actor(s):** Registered users.
- **Preconditions:** The user must have a confirmed booking.
- **Postconditions:** The booking is cancelled, and the system reflects the updated status (e.g., refund details, confirmation).

Main Flow:

1. **User Action:** The user selects a specific booking from the "Booking History" page.
   System Response: The system retrieves the booking's details and displays options like "Cancel Booking" and "Contact Support."
2. **User Action:** The user clicks "Cancel Booking."
   System Response: The system checks whether the booking is eligible for cancellation based on the hotel's policy.
3. **User Action:** The user confirms the cancellation when prompted.
   System Response: The system updates the booking status to "Cancelled," processes any applicable refunds, and notifies the user.

Alternate Flow:

- **User Action:** The user tries to cancel a non-refundable booking.
  System Response: The system displays a message: "This booking is non-cancellable as per the hotel's policy."

Scenario:

1. A user decides to cancel a booking for an upcoming trip.
2. They log in, select the booking, and choose the cancellation option.
3. After confirming, the system cancels the booking and notifies the user about the refund timeline.

Use Case 9:Payment

Name:Payment

- **Actor(s):** Users (registered or guests).
- **Preconditions:** The user has selected a room and is ready to pay.
- **Postconditions:** Payment is processed successfully, and a booking confirmation is generated.

Main Flow:

1. **User Action:** The user proceeds to the payment page after selecting a hotel and room.
   System Response: The system displays the payment options (e.g., credit/debit card, digital wallets).
2. **User Action:** The user selects a payment method and enters the required details.
   System Response: The system validates the details (e.g., card number and validity date).
3. **User Action:** The user clicks "Pay Now."
   System Response: The system sends the payment request to a secure gateway and waits for confirmation.
4. **User Action:** The user waits for the system to complete the payment.
   System Response: Upon successful payment, the system displays a confirmation message with the booking details and sends an email receipt to the user.

Alternate Flow:

- **User Action:** The user enters incorrect payment details or experiences a failed transaction.
   System Response: The system displays an error message like: "Payment failed. Please try again." and provides an option to re-enter the details.

Scenario:

1. A user completes room selection and proceeds to the payment page.
2. They enter credit card details and click "Pay."
3. The payment is processed, and the user receives a booking confirmation along with a receipt.