Sprint Backlogs (Sprint 1 and Sprint 2)

Sprint 1 Backlog (Project Setup)

Module Name: Project Initialization Module

Selected User Stories for Sprint 1

- **US02: Booking a Hotel Room:** As a Guest, I want to securely book a hotel room in real-time so that I have my accommodation confirmed to my liking

  - **US02.1:** Display comprehensive room details, including images, descriptions, pricing, and available dates.
  - **US02.2:** Offer guests the ability to select additional services such as breakfast, airport transportation, or special accommodations.
  - **US02.3:** Issue immediate booking confirmations and receipts upon successful payment transactions to assure guests of their reservations.

- **US08: Register/Login:** As a User, I want to authenticate myself by logging in or creating a new account through signup so that I can book a room:
  - **US08.1:** Provide a registration option for new users so that I can create an account to access hotel booking services.
  - **US08.2:** Enable secure login with valid credentials so that I can access my account safely.
  - **US08.3:** Implement verification via a PIN for new signups so that I can ensure account security.
  - **US08.4:** Notify users of successful login so that I can confirm access to my account.
  - **US08.5:** Redirect users to the homepage upon successful authentication so that I can start browsing and booking rooms immediately.

- **US09: Managing Rooms:** As an Admin, I want to add and manage rooms so that I can optimise usage and costs

- ○ **US09.1:** Allow detailed entry of new room information including type, price, capacity, and special features.
- ○ **US09.2:** Facilitate easy updates to existing room details to keep information current.
- ○ **US09.3:** Provide functionality to remove rooms that are no longer available or in service.

- ● **US11: Manage Hotels:** As an Admin, I want to add and manage hotels within the system so that hotel information is accurate and reflective of available inventory

  - ○ **US11.1:** Provide an intuitive interface for admins to add new hotels with necessary details like name, location, contact information, and amenities.
  - ○ **US11.2:** Enable updating and editing of existing hotel information to ensure accuracy.
  - ○ **US11.3:** Allow removal of hotel listings to maintain an up-to-date inventory.

- ● **US12: Manage Accounts:** As an Admin, I want to add, update, or remove user accounts so that I can ensure account information is accurate, secure, and up-to-date.
  - ○ **US12.1:** Allow the creation of new user accounts so that I can grant system access to authorized users.
  - ○ **US12.2:** Enable updating of existing user details so that I can keep account information current and accurate.
  - ○ **US12.3:** Provide functionality to remove user accounts so that I can maintain security and restrict access when necessary.
  - ○ **US12.4:** Ensure that all account modifications are logged so that I can track changes for auditing purposes.

Structured Specifications for Selected User Stories

US02: Booking a Hotel Room

US02.1: Display Room Details
Pre-condition: User selects a hotel.
Post-condition: Comprehensive room details are displayed.

Normal Flow: Select hotel → View room details → Display images, descriptions, and pricing.
Alternative Flow: Notify if no rooms are available.

US02.2: Selecting Additional Services

Pre-condition: User is in the booking process.
Post-condition: Selected additional services are added to the booking.
Normal Flow: Choose additional services → Confirm selection → Update booking summary.
Alternative Flow: Notify if service is unavailable.

US02.3: Booking Confirmation

Pre-condition: Payment is successfully processed.
Post-condition: Booking confirmation and receipt are generated.
Normal Flow: Process payment → Generate confirmation → Send receipt via email/SMS.
Alternative Flow: Notify if payment fails.

US08: Register/Login

US08.1: User Registration

Pre-condition: User provides valid registration details.

Post-condition: Account is successfully created.

Normal Flow: Enter registration details → Submit → Receive verification PIN → Verify PIN → Account created.

Alternative Flow: Notify user if registration details are invalid or if the email/phone number is already in use.

US08.2: Secure Login

Pre-condition: User has a registered account.

Post-condition: User is successfully logged in.

Normal Flow: Enter login credentials → Authenticate → Redirect to homepage.

Alternative Flow: Notify user if login credentials are incorrect.

US08.3: PIN Verification for Signup

Pre-condition: User has successfully submitted registration details.

Post-condition: Account is verified and activated.

Normal Flow: System sends verification PIN → User enters PIN → Account activated.

Alternative Flow: Notify user if PIN is incorrect or expired.

US08.4: Successful Login Notification

Pre-condition: User has entered correct credentials.

Post-condition: User receives confirmation of login.

Normal Flow: Authenticate user → Notify successful login → Redirect to homepage.

Alternative Flow: Alert if login is from a new device and require additional verification.

US08.5: Homepage Redirection

Pre-condition: User is successfully authenticated.

Post-condition: Homepage is displayed.

Normal Flow: Authenticate → Redirect to homepage.

Alternative Flow: Redirect user to an onboarding page if first-time login.

US09: Managing Rooms

US09.1: Adding New Rooms

Pre-condition: Admin has the necessary permissions.

Post-condition: Room is successfully added to the system.

Normal Flow: Enter room details → Save → Confirm addition.

Alternative Flow: Notify if required fields are missing.

US09.2: Updating Room Details

Pre-condition: Room exists in the system.

Post-condition: Updated details are saved.

Normal Flow: Select room → Edit details → Save changes.

Alternative Flow: Notify if update fails due to missing or incorrect data.

US09.3: Removing Rooms

Pre-condition: Admin has necessary permissions.

Post-condition: Room is removed from active listings.

Normal Flow: Select room → Remove → Confirm deletion.

Alternative Flow: Notify if the room cannot be deleted due to active bookings.

US11: Manage Hotels

US11.1: Adding New Hotels

Pre-condition: Admin has necessary permissions.

Post-condition: Hotel is successfully added to the system.

Normal Flow: Enter hotel details → Save.

Alternative Flow: Notify if details are incomplete or if the hotel already exists.

US11.2: Updating Hotel Details

Pre-condition: Hotel exists in the system.

Post-condition: Updated details are saved.

Normal Flow: Select hotel → Edit details → Save changes.

Alternative Flow: Notify if update fails.

US11.3: Removing Hotels

Pre-condition: Admin has necessary permissions.

Post-condition: Hotel is removed from active listings.

Normal Flow: Select hotel → Remove → Confirm deletion.

Alternative Flow: Notify if hotel has active bookings and cannot be removed.

US12: Manage Accounts

US12.1: Creating User Accounts

Pre-condition: Admin is logged in.

Post-condition: User account is created.

Normal Flow: Enter user details → Assign role → Save.

Alternative Flow: Notify if details are invalid.

US12.2: Updating User Details

Pre-condition: User account exists.

Post-condition: Updated details are saved.

Normal Flow: Select user → Edit details → Save.

Alternative Flow: Notify if the update fails.

US12.3: Removing User Accounts

Pre-condition: Admin has necessary permissions.

Post-condition: Account is removed.

Normal Flow: Select user → Remove account → Confirm deletion.

Alternative Flow: Notify if the user has active reservations or permissions preventing deletion.

US12.4: Logging Account Changes

Pre-condition: Any modification is made to a user account.

Post-condition: Change is recorded in the system.

Normal Flow: Admin modifies an account → System logs change.

Alternative Flow: Notify if logging fails due to a system issue.

Sprint 2 Backlog (Feature Enhancement)

Module Name: Booking and User Management Module

Selected User Stories for Sprint 2

- **US01: Searching and Filtering Hotels:** As a Guest, I want to search and filter hotels so that I can quickly find suitable accommodation.

  - **US01.1:** Allow guests to search hotels by entering location, check-in/check-out dates, and specific preferences (room type, budget, etc.).
  - **US01.2:** Enable filtering of search results based on amenities (Wi-Fi, breakfast, swimming pool, etc.) to enhance guest convenience.
  - **US01.3:** Provide sorting options by price, user ratings, or proximity to major landmarks or airports to streamline decision-making.

- **US13: Adjust Prices:** As Hotel Management, I want to modify room pricing so that I can maintain competitive pricing and manage revenue effectively.
  - **US13.1:** Allow real-time adjustments to room pricing so that I can respond to changing market conditions.

- ○ **US13.2:** Provide an option to set automatic pricing rules based on predefined conditions so that I can streamline pricing updates.
- ○ **US13.3:** Ensure price changes are logged and documented so that I can maintain a history of adjustments for auditing and analysis.

- ● **US03: Managing Bookings:** As a Guest, I want to manage my bookings so that I can adjust my travel plans easily and avoid miscommunication with the Hotel

  - ○ **US03.1:** Provide guests with easy access to view their booking history and upcoming reservation details.
  - ○ **US03.2:** Implement automated notifications via email or SMS to inform guests promptly of any booking changes, modifications, or cancellations.

- ● **US010: Viewing Booking Data:** As Hotel Staff, I want to access detailed booking data so that I can improve customer service and operational management.

  - ○ **US010.1:** Facilitate quick retrieval of booking information based on guest name, booking dates, or room numbers for efficient customer service.
  - ○ **US010.2:** Provide access to detailed guest profiles to personalize guest services and improve customer satisfaction.

- ● **US15: Process Payment:** As Hotel Management, I want to process and verify payments so that I can ensure all financial transactions are handled securely and accurately.
  - ○ **US15.1:** Integrate with secure payment gateways so that I can process transactions reliably.
  - ○ **US15.2:** Validate and confirm payment details before processing so that I can prevent errors or fraud.
  - ○ **US15.3:** Update booking statuses automatically upon successful payments so that I can ensure accurate records.
  - ○ **US15.4:** Maintain detailed logs of all transactions so that I can support auditing and financial reconciliation.

Structured Specifications for Selected User Stories

US01: Searching and Filtering Hotels

US01.1: Searching Hotels
Pre-condition: User inputs valid search criteria.
Post-condition: Hotels matching criteria are displayed.
Normal Flow: Enter location, dates → Search → Display results.
Alternative Flow: Notify if no results are found.

US01.2: Filtering Hotels by Amenities
Pre-condition: Hotels are listed from the initial search.
Post-condition: Filtered hotel results are displayed.
Normal Flow: Select amenities → Apply filter → Display updated results.
Alternative Flow: Alert if no matching amenities are found.

US01.3: Sorting Hotels
Pre-condition: Hotels are listed.
Post-condition: Hotels are sorted as per user choice.
Normal Flow: Choose sorting criteria → Display sorted results.
Alternative Flow: Default sorting if criteria are unspecified.

US03: Managing Bookings

US03.1: Viewing Booking History
Pre-condition: User is logged in.
Post-condition: Booking history is displayed.
Normal Flow: Navigate to bookings → View past and upcoming reservations.
Alternative Flow: Notify if no booking history is available.

US03.2: Automated Notifications
Pre-condition: A booking is modified.
Post-condition: User receives a notification.
Normal Flow: Update booking → Send notification via email/SMS.
Alternative Flow: Notify if the message fails to send.

US10: Viewing Booking Data

US10.1: Retrieving Booking Information

Pre-condition: Hotel staff is logged in.

Post-condition: Booking details are displayed.

Normal Flow: Search by guest name, booking dates, or room number → Display results.

Alternative Flow: Notify if no matching records are found.

US10.2: Accessing Guest Profiles

Pre-condition: Booking exists for the guest.

Post-condition: Detailed guest profile is displayed.

Normal Flow: Select guest name from booking list → View profile.

Alternative Flow: Notify if the profile is incomplete or missing.

US13: Adjust Prices

US13.1: Modifying Room Pricing

Pre-condition: Admin has necessary permissions.

Post-condition: Price changes are reflected in the system.

Normal Flow: Adjust pricing → Confirm changes → Save.

Alternative Flow: Notify if the update fails.

US13.2: Setting Automated Pricing Rules

Pre-condition: Admin has access to pricing management.

Post-condition: Automatic pricing rules are applied.

Normal Flow: Define conditions → Save → System updates prices accordingly.

Alternative Flow: Notify if rules conflict with existing settings.

US13.3: Logging Price Adjustments

Pre-condition: Price changes are made.

Post-condition: Adjustments are recorded in the system.

Normal Flow: Modify price → Save → Log entry created.

Alternative Flow: Notify if logging fails.

US15: Process Payment

US15.1: Processing Transactions

Pre-condition: Secure payment gateway is available.

Post-condition: Payment is successfully processed.

Normal Flow: Enter payment details → Process transaction → Confirm booking.

Alternative Flow: Notify if payment fails.

US15.2: Validating Payment Details

Pre-condition: User enters payment details.

Post-condition: Payment is validated.

Normal Flow: System checks card details → Validate with bank → Confirm.

Alternative Flow: Notify if card is declined.

US15.3: Updating Booking Status

Pre-condition: Payment is successful.

Post-condition: Booking status is updated.

Normal Flow: Confirm payment → Update booking record → Notify user.

Alternative Flow: Notify if status update fails.

US15.4: Maintaining Payment Logs

Pre-condition: A transaction is completed.

Post-condition: Transaction is logged for auditing.

Normal Flow: Process payment → Save transaction details.

Alternative Flow: Notify if logging fails.