TASK 2

1. **As a customer, I want to search for hotels based on location and dates so that I can explore options even before creating an account.**

Acceptance Criteria:

- The search functionality should be accessible without logging in.
- Users should be able to enter search criteria (location, check-in/check-out dates) and view available hotels.
- The search results should display hotel names, prices, and brief descriptions.
- The system should prompt users to log in or create an account when they attempt to make a booking

2. **As a customer, I want to view details of a hotel so that I can gather information before deciding to book.**

Acceptance Criteria:

- The hotel details page should be accessible without logging in.
- Customers should see information such as room types, amenities, photos, and prices.
- The system should prompt Customers to log in or create an account if they try to proceed with booking or leave a review.

3. **As a customer, I want to explore current promotions and special offers so that I can take advantage of discounts before deciding to log in or create an account.**

Acceptance Criteria:

- The promotions and offers page should be visible and accessible without logging in.
- Customers should see current deals, discount codes, and special offers.
- The system should encourage users to log in or create an account to redeem certain offers or participate in loyalty programs.

4. **As a customer, I want to create an account on the hotel booking system so that I can manage personal information.**

Acceptance Criteria:

- The registration form should include fields for personal details (name, email, password, etc.).
- The system should validate that the email is unique and the password meets security requirements.
- Upon successful registration, the consumer should receive a confirmation email.

5. **As a customer, I want to log in to my account so that I can access my booking details and personal information.**

Acceptance Criteria:

- The login form should require an email and password.
- The system should validate the credentials and grant access to the Customers' account upon successful login.
- The system should display an error message for incorrect login attempts.
- Customers should have the option to reset their password if they forget it.

6. **As a customer, I want to reset my password if I forget it so that I can regain access to my account.**

Acceptance Criteria:

- The system should provide a "Forgot Password" link on the login page.
- Users should be able to request a password reset by entering their email address.
- The system should send a password reset link to the user's email address.

7. **As a customer, I want to update my personal information (e.g., email, phone number) so that my account details are up-to-date.**

Acceptance Criteria:

- The account management page should allow users to update personal details such as name, email, and phone number.
- Users should be required to enter their current password to save changes for security reasons.
- The system should validate the new information (e.g., format of the email address).

8. **As a customer, I want to view my account details so that I can review my personal information and booking history.**

Acceptance Criteria:

- The account details page should display personal information such as name, email, and phone number.
- The page should also show a list of past and upcoming bookings.
- Users should have the option to view and manage their saved payment methods and address information.

9. **As a customer, I want to search for available hotel rooms based on location and dates so that I can find a room that fits my travel plans.**

Acceptance Criteria:

- The system should allow consumers to input a location, check-in date, and check-out date.
- Search results should display available rooms with details such as room type, price, and amenities.

10. **As a customer, I want to filter search results by price range and hotel rating so that I can find hotels that fit my budget and meet my quality expectations.**

Acceptance Criteria:

- The filter options should include a price range slider and a minimum star rating selector.
- The search results should update to show hotels within the specified price range and meeting or exceeding the selected rating.
- Users should be able to see the price and rating for each hotel in the search results.

11. As a customer, I want to view detailed information about a specific room so that I can decide if it meets my needs.

Acceptance Criteria:

- The room details page should display room type, price per night, available amenities, photos, and cancellation policy.
- The system should show the total cost for the selected stay period.
- Consumers should be able to view customer reviews and ratings for the room/hotel.

12. As a customer, I want to securely pay for my hotel booking so that my reservation is confirmed and guaranteed.

   Acceptance Criteria:

- The payment process should be integrated into the booking confirmation step.
- The system should offer multiple payment options (e.g., credit card, debit card, UPI, Net Banking).
- Payment details should be securely processed.
- Upon successful payment, the consumer should receive a confirmation email with booking details.

13. As a customer, I want to apply discount codes/coupon during the payment process so that I can receive discounts on my booking.

Acceptance Criteria:

- The payment page should include a field for entering discount or promotional codes.

- The system should validate the code and apply the discount to the total booking cost.
- The updated total cost, with the discount applied, should be clearly displayed before completing the payment.

14. As a customer, I want to review my payment details before finalizing the booking so that I can ensure all information is correct.

Acceptance Criteria:

- The payment review page should display a summary of the booking details, including the room, dates, total cost, and payment method.
- The consumer should have the option to edit payment details or cancel the booking if necessary.
- The system should allow users to confirm the payment once they have reviewed and verified all details.

15. As a customer, I want to cancel my hotel booking so that I can change my travel plans.

Acceptance Criteria:

- Consumers should be able to cancel their booking from their account.
- The system should display the cancellation policy, including any fees or deadlines, before confirming the cancellation.

16. As a customer, I want to receive a refund if I cancel my booking according to the hotel's cancellation policy so that I am reimbursed appropriately.

Acceptance Criteria:

- The cancellation process should include an option to initiate a refund to the original payment method.
- The system should display the cancellation policy, including refund eligibility and any associated fees, before processing the cancellation.
- The consumer should receive a confirmation email detailing the cancellation and refund process.

17. **As a customer, I want to be able to give ratings/review to the hotel after my stay so that I can share my experience with others.**

Acceptance Criteria:

- Consumers should be prompted to leave a review after their stay has ended.
- The review form should include options to rate the hotel on various aspects (e.g., cleanliness, service, amenities) and leave a written comment, photo, video.

18. **As a customer, I want to view my past bookings so that I can keep track of my previous stays.**

Acceptance Criteria:

- The system should display a history of all bookings made by the consumer, including details like dates, hotel name, room type, and total cost.
- Consumers should be able to view and download invoices for past bookings.

19. **As a customer, I want to view the hotel's policies (e.g., check-in/check-out times, cancellation policy) so that I should be aware about policies.**

Acceptance Criteria:

- The hotel policies should be easily accessible from the hotel's profile page.
- Policies should be clearly presented, with sections for check-in/check-out times, cancellation terms, and any additional rules.

20. **As a Payment system, I want to securely process payment transactions so that bookings can be confirmed and managed accurately.**

Acceptance Criteria:

- The system should encrypt payment details and use secure payment gateways.
- Payment transactions should be validated and processed efficiently.

21. As a receptionist, I want to automatically update room availability based on confirmed bookings and cancellations so that availability is accurately reflected.

Acceptance Criteria:

- The system should adjust room availability in real-time as bookings are made or canceled.
- Availability changes should be reflected in search results and booking options.

22. As a receptionist, I want to log in to the system using Hotel's credentials so that I can access the hotel management features.

Acceptance Criteria:

- Receptionist must enter valid credentials (Hotel Id and password).
- The system should authenticate the credentials.
- If authentication is successful, the receptionist should be redirected to the reception dashboard.
- If authentication fails, the receptionist should receive an error message.

23. As a receptionist, I want to check and update the room booking status for offline bookings so that the system accurately reflects all reservations, whether made online or in person.

Acceptance Criteria:

- The receptionist should be able to manually enter booking details such as customer name, check-in/check-out dates, room type, and payment status.
- The system should allow the receptionist to update the room's status to "Booked" for the selected dates.
- The system should validate the availability of the room before confirming the booking.
- The system should ensure that the offline booking is reflected in the overall booking history and occupancy reports.

24. As a receptionist, I want to check in guests when they arrive so that they can start their stay at the hotel.

Acceptance Criteria:

- Receptionist should be able to select a booking and check in the guests.
- The system should verify that the booking is valid and the room is ready.
- The system should update the booking status to "Checked-In" and notify the user via email/SMS.

25. As a receptionist, I want to check out guests when they depart so that the room can be made available for new bookings.

Acceptance Criteria:

- Receptionist should be able to select a checked-in booking and proceed with the check-out process.
- The system should update the booking status to "Checked-Out".

26. As a manager, I want to log in to the system using Hotel's credentials so that I can manage the hotel operations.

Acceptance Criteria:

- Manager must enter valid credentials (Hotel ID and password).
- The system should authenticate the credentials and ensure the manager role is assigned.
- If authentication is successful, the manager should be redirected to the management dashboard.
- If authentication fails, the manager should receive an error message.

27. As a manager, I want to manage the availability of rooms by adding new ones or removing existing ones to align with market demand and optimize occupancy.

Acceptance Criteria:

- The manager should be able to add new rooms by entering details such as room type, price, amenities, and availability.
- The system should validate the new room details, ensuring they meet the required criteria before adding them to the inventory.
- The manager should be able to remove rooms from the inventory, provided they are not currently booked or occupied.
- The system should log all changes to room availability for audit purposes, including the reason for adding or removing rooms.

28. As a manager, I want to view the booking history so that I can analyze past reservations and obtain data to resolve any conflicting or operational issues.

Acceptance Criteria:

- The manager should be able to access a detailed list of past bookings, including guest names, check-in/check-out dates, room types, and payment statuses.
- The system should provide options to filter and sort the booking history by various criteria such as date range, room type, or guest name.
- The booking history should include the ability to view detailed information for each booking, including any modifications or special requests.

29. As a manager, I want to access hotel analytics/stats for any time duration so that I can evaluate performance metrics and make informed decisions based on historical data.

Acceptance Criteria:

- The manager should be able to select a specific time duration (e.g., daily, weekly, monthly, or custom range) for which to view analytics.
- The system should provide metrics such as occupancy rates, revenue, average daily rate, and customer satisfaction scores.
- The analytics should be presented in a user-friendly format, including visualizations such as charts and graphs.

30. As a manager, I want to manage the prices for rooms so that I can adjust rates according to market demand, seasonality, and other factors to maximize revenue.

Acceptance Criteria:

- The manager should be able to view the current pricing for all room types.
- The system should allow the manager to set or update prices for individual rooms or apply bulk pricing changes based on criteria such as season or demand.
- The updated pricing should be reflected immediately across all booking channels and interfaces.

31. As an admin, I want to add or remove hotels so that I can manage the list of hotels available in the system.

Acceptance Criteria:
- The admin should be able to add a new hotel by entering details such as name, location, and contact information.
- The admin should be able to remove a hotel from the list.
- Changes should be reflected immediately in the list of hotels.
- When the admin add new hotels to the system it should generate a new distinct Hotel ID.

32. As an admin, I want to search and filter the list of hotels so that I can view all the currently registered hotels.

Acceptance Criteria:
- The admin should be able to search for hotels by name, location, or hotel ID.
- The admin should be able to filter the list of hotels by criteria such as city, star rating, or availability status.
- The search and filter results should be displayed immediately and accurately reflect the current list of registered hotels

Task-3

Develop sprints from the product backlog
> O Specify your sprint details with an estimated timeline for development (use FP or OP for the estimation)
> O Estimate how many sprints you can develop in your course project

<u>Sprint Details with Estimated Timeline</u>

Sprint 1: Account Creation, Login, and Password Management

User Stories:

- As a Customer, I want to create an account on the hotel booking system so that I can manage personal information.
- As a Customer, I want to log in to my account so that I can access my booking details and personal information.
- As a Customer, I want to reset my password if I forget it so that I can regain access to my account.
- As a manager, I want to log in to the system using hotel's credentials so that I can manage the hotel operations.
- As a receptionist, I want to log in to the system using Hotel's credentials so that I can access the hotel management features.

Estimated Timeline: 2 weeks

Details: Develop the user registration, login, and password reset functionalities. This involves form design, validation, and email integration for confirmation and password reset.

Function Point Calculation:

User Story 1: Account Creation

- **EI:** 1 (User input form for account creation)
- **ILF:** 1 (User account details stored in the database)
- **EO:** 1 (Confirmation email sent to the user)
  FP Calculation:
    - FP = (1 EI * 3) + (1 ILF * 7) + (1 EO * 4)
    - FP = 3 + 7 + 4 = **14 FP**

User Story 2: User Login

- **EI:** 1 (User input form for login)
- **ILF:** 1 (Verification of user credentials)
- **EQ:** 1 (Query to check user credentials)
  FP Calculation:
    - FP = (1 EI * 3) + (1 ILF * 7) + (1 EQ * 3)
    - FP = 3 + 7 + 3 = **13 FP**

User Story 3: Password Reset

- **EI:** 1 (User input form for password reset)
- **ILF:** 1 (Update user credentials in the database)
- **EO:** 1 (Password reset email sent to the user)
  FP Calculation:
    - FP = (1 EI * 3) + (1 ILF * 7) + (1 EO * 4)
    - FP = 3 + 7 + 4 = **14 FP**

4. Total Function Points for Sprint 1:

- **Total FP = 14 (Account Creation) + 13 (Login) + 14 (Password Reset) = 41 FP**

Conclusion:

The estimated function points for Sprint 1, which involves user account creation, login, and password management, is **41 FP**. This gives a quantitative measure of the scope of work for this sprint.

Sprint 2: Search, Filter and View for Users

User Stories:

- As a customer, I want to search for hotels based on location and dates so that I can explore options even before creating an account.
- As a customer, I want to view details of a hotel so that I can gather information before deciding to book.
- As a customer, I want to filter search results by price range and hotel rating so that I can find hotels that fit my budget and meet my quality expectations.
- As a customer, I want to view detailed information about a specific room so that I can decide if it meets my needs.
- As a customer, I want to search for available hotel rooms based on location and dates so that I can find a room that fits my travel plans.
- As a customer, I want to explore current promotions and special offers so that I can take advantage of discounts before deciding to log in or create an account.
- As an admin, I want to search and filter the list of hotels so that I can view all the currently registered hotels.

Estimated Timeline: 2 weeks

- **Search for Hotels (Location & Dates):** 10 FP
- **View Hotel Details:** 8 FP
- **Filter by Price & Rating:** 12 FP
- **View Detailed Room Information:** 8 FP
- **Search for Available Rooms:** 10 FP
- **View Promotions and Offers:** 5 FP
  Total Function Points: 53 FP

Details: Implement the search functionality for customers and display hotel details. This includes developing the UI for search results, hotel details as well as backend integration to handle search queries and data retrieval.

Sprint 3: Account Management for Logged-In Customers

User Stories:

- As a customer, I want to view my account details so that I can review my personal information and booking history.
- As a customer, I want to update my personal information (e.g., email, phone number) so that my account details are up-to-date.

Estimated Timeline: 1 weeks

Total Function Point: 12 FP

- **Details:** Implement account management features for updating personal information and viewing booking history. Also, enhance the search functionality for logged-in customers to show personalized search results.

Sprint 4: Payment Processing and Discounts

User Stories:

- As a customer, I want to securely pay for my hotel booking so that my reservation is confirmed and guaranteed.
- As a customer, I want to apply discount codes/coupons during the payment process so that I can receive discounts on my booking.
- As a customer, I want to review my payment details before finalizing the booking so that I can ensure all information is correct.
- As a system, I want to securely process payment transactions so that bookings can be confirmed and managed accurately.

Estimated Timeline: 2 weeks

Total Function Point: 28 FP

- **Details:** Implement filtering options in search results, display detailed room information, and develop a secure payment processing system. This includes UI for filters, detailed room pages, and payment gateways.

Sprint 5: Booking Review, Cancellation, and Ratings

User Stories:

- As a customer, I want to cancel my hotel booking so that I can change my travel plans.
- As a customer, I want to receive a refund if I cancel my booking according to the hotel's cancellation policy so that I am reimbursed appropriately.

- As a customer, I want to view my past bookings so that I can keep track of my previous stays.
- As a customer, I want to give ratings/reviews to the hotel after my stay so that I can share my experience with others.

Estimated Timeline: 2 weeks

Total Function Point: 18 FP

- **Details:** Implement booking cancellation and refund processing, customer reviews and ratings, and past booking history. This includes handling cancellation policies and enabling post-stay feedback.

Sprint 6: Role-Based Access for Admin, Receptionists and Managers

User Stories:

Receptionist:

- As an admin, I want to add or remove hotels so that I can manage the list of hotels available in the system.
- As a receptionist, I want to access the booking status of all rooms so that I can quickly check availability and manage reservations.
- As a receptionist, I want to update the room booking status for offline bookings so that the system accurately reflects all reservations, whether made online or in person.
- As a receptionist, I want to check in guests when they arrive so that they can start their stay at the hotel.
- As a receptionist, I want to check out guests when they depart so that the room can be made available for new bookings.

Manager:

- As a manager, I want to manage the availability of rooms by adding new ones or removing existing ones to align with market demand and optimize occupancy.

- As a manager, I want to view the booking history so that I can analyze past reservations and obtain data to resolve any conflicting or operational issues.
- As a manager, I want to access hotel analytics/stats for any time duration so that I can evaluate performance metrics and make informed decisions based on historical data.
- As a manager, I want to manage the prices for rooms so that I can adjust rates according to market demand, seasonality, and other factors to maximize revenue.

Estimated Timeline: 4 weeks

Total Function Point: 45 FP

- **Details:** Implement receptionist login, booking management, check-in/check-out processes, and handling of offline bookings. This includes UI development for receptionist dashboards and backend support for booking updates ans also Implement managerial controls for room availability, pricing, and analytics. This sprint involves integrating reporting tools, managing data export formats, and creating dashboards for analytics and pricing management.

Total Number of Sprints: 6