Lab 3b

1. Working in your Project team (or as Project Owner), create the User Story map for your project. Make the User Stories to be as small as possible.

User Stories for Flight Booking System

User Registration and Authentication

1. **As a traveler,** I want to register an account so that I can book flights and make payments online.
2. **As a traveler,** I want to log in to my account so that I can access my booking history and manage my details.
3. **As a traveler,** I want to reset my password if I forget it so that I can regain access to my account.

Flight Search and Booking

4. **As a traveler,** I want to search for flights by destination, date, and time so that I can find the best flight options.
5. **As a traveler,** I want to view detailed flight information, including departure and arrival times, duration, and layovers so that I can make an informed decision.
6. **As a traveler,** I want to book a one-way flight so that I can travel to my destination without a return flight.
7. **As a traveler,** I want to book a round-trip flight so that I can plan my return journey at a potentially lower cost.
8. **As a traveler,** I want to view dynamic ticket prices based on seat availability and selected dates so that I can choose the most cost-effective options.

Payment and Confirmation

9. **As a traveler,** I want to pay for my flight tickets using a credit card or PayPal so that I can complete my booking securely.
10. **As a traveler,** I want to receive a booking confirmation and e-ticket via email so that I have proof of my purchase and travel details.
11. **As a traveler,** I want to receive an SMS confirmation for my booking so that I have immediate confirmation on my mobile device.

Booking History and Account Management

12. **As a traveler,** I want to view my booking history so that I can keep track of my past and upcoming trips.
13. **As a traveler,** I want to manage my account details so that my information is always up-to-date.
14. **As a frequent traveler,** I want to receive discounts on bookings so that I can save money on my travel expenses.

Admin Panel and Management

15. **As an administrator,** I want to add new airlines and flights to the system so that travelers have more options.
16. **As an administrator,** I want to edit existing airline and flight details so that the information remains accurate and current.
17. **As an administrator,** I want to remove airlines and flights that are no longer available so that the system reflects current offerings.
18. **As an administrator,** I want to manage passenger accounts to ensure data accuracy and security.

19. **As an administrator,** I want to view and generate reports on bookings and cancellations so that I can analyze system performance and make data-driven decisions.

Additional Functionalities

20. **As a traveler,** I want to save frequent passenger details so that I can quickly fill out booking information for future flights.
21. **As a traveler,** I want to manage my frequent passenger details so that I can update or delete information as needed.
22. **As a traveler,** I want to cancel a booking if my plans change so that I can adjust my travel itinerary.

User Story Mapping for Flight Booking System

User story mapping is a technique used to organize user stories into a visual map, providing a holistic view of the system and its functionalities. Below is a user story map for the Flight Booking System, categorized by activities, tasks, and stories.

Activities

1. **User Registration and Authentication**
2. **Flight Search and Booking**
3. **Payment and Confirmation**
4. **Booking History and Account Management**
5. **Admin Panel and Management**

Tasks and Stories

1. User Registration and Authentication

- **Task:** Register an Account
  - **Story:** As a traveler, I want to register an account so that I can book flights and make payments online.
- **Task:** Log In
  - **Story:** As a traveler, I want to log in to my account so that I can access my booking history and manage my details.
- **Task:** Reset Password
  - **Story:** As a traveler, I want to reset my password if I forget it so that I can regain access to my account.

2. Flight Search and Booking

- **Task:** Search for Flights
  - **Story:** As a traveler, I want to search for flights by destination, date, and time so that I can find the best flight options.
  - **Story:** As a traveler, I want to view detailed flight information, including departure and arrival times, duration, and layovers so that I can make an informed decision.
- **Task:** Book Flights
  - **Story:** As a traveler, I want to book a one-way flight so that I can travel to my destination without a return flight.
  - **Story:** As a traveler, I want to book a round-trip flight so that I can plan my return journey at a potentially lower cost.
  - **Story:** As a traveler, I want to view dynamic ticket prices based on seat availability and selected dates so that I can choose the most cost-effective options.

3. Payment and Confirmation

- **Task:** Make Payment

- o **Story:** As a traveler, I want to pay for my flight tickets using a credit card or PayPal so that I can complete my booking securely.
- **Task:** Receive Confirmation
  - o **Story:** As a traveler, I want to receive a booking confirmation and e-ticket via email so that I have proof of my purchase and travel details.
  - o **Story:** As a traveler, I want to receive an SMS confirmation for my booking so that I have immediate confirmation on my mobile device.

4. Booking History and Account Management
- **Task:** View Booking History
  - o **Story:** As a traveler, I want to view my booking history so that I can keep track of my past and upcoming trips.
- **Task:** Manage Account
  - o **Story:** As a traveler, I want to manage my account details so that my information is always up-to-date.
- **Task:** Receive Discounts
  - o **Story:** As a frequent traveler, I want to receive discounts on bookings so that I can save money on my travel expenses.

5. Admin Panel and Management
- **Task:** Manage Flights
  - o **Story:** As an administrator, I want to add new airlines and flights to the system so that travelers have more options.
  - o **Story:** As an administrator, I want to edit existing airline and flight details so that the information remains accurate and current.
  - o **Story:** As an administrator, I want to remove airlines and flights that are no longer available so that the system reflects current offerings.
- **Task:** Manage Passenger Accounts
  - o **Story:** As an administrator, I want to manage passenger accounts to ensure data accuracy and security.
- **Task:** Generate Reports
  - o **Story:** As an administrator, I want to view and generate reports on bookings and cancellations so that I can analyze system performance and make data-driven decisions.

Additional Functionalities
- **Task:** Save Frequent Passenger Details
  - o **Story:** As a traveler, I want to save frequent passenger details so that I can quickly fill out booking information for future flights.
- **Task:** Manage Frequent Passenger Details
  - o **Story:** As a traveler, I want to manage my frequent passenger details so that I can update or delete information as needed.
- **Task:** Cancel Booking
  - o **Story:** As a traveler, I want to cancel a booking if my plans change so that I can adjust my travel itinerary.

2. Choose any three of your major/significant User Stories and write the Acceptance Criteria for each.

User Story 1: Register an Account

Acceptance Criteria
- Clicking "Register" displays the registration form.
- Invalid email format shows an error message.
- Required fields left empty show an error message.
- Password not meeting criteria shows an error message.
- Successfully submitting the form creates the account and sends a confirmation email.
- Duplicate email shows an error message.

User Story 2: Search for Flights

Acceptance Criteria
- Accessing the flight search page displays the search form.
- Typing a destination shows a list of matching destinations.
- Clicking on the date field shows a date picker.
- Clicking "Search" shows a list of matching flights with details.
- No matching flights show a "no results" message with suggestions.

User Story 3: Make Payment

Acceptance Criteria
- Payment page displays options for credit card and PayPal.
- Entering credit card details processes the payment securely.
- Redirecting to PayPal allows login and payment completion.
- Successful payment shows a confirmation message and sends a confirmation email with e-ticket.
- Payment failure shows an error message with corrective actions.

3. Write the Main Scenario (i.e. the main/basic flow or steps) for each of the three chosen User Stories (from 2 above)

User Story 1: Register an Account
Main Scenario:
1. The traveler navigates to the registration page.
2. The traveler clicks the "Register" button to open the registration form.
3. The traveler fills out the required fields (name, email, password, etc.).
4. The traveler clicks the "Submit" button.
5. The system validates the input data.
6. If the data is valid, the system creates a new user account.
7. The system sends a confirmation email to the traveler.
8. The traveler receives the confirmation email.

User Story 2: Search for Flights
Main Scenario:
1. The traveler navigates to the flight search page.

2. The traveler enters the destination, date, and time in the search form.
3. The traveler clicks the "Search" button.
4. The system processes the search request and retrieves matching flights.
5. The system displays a list of available flights, including details such as departure and arrival times, duration, and prices.
6. The traveler reviews the flight options.
7. If the traveler finds a suitable flight, they proceed to book it.

User Story 3: Make Payment
Main Scenario:
1. The traveler selects a flight and proceeds to the payment page.
2. The traveler chooses a payment method (credit card or PayPal).
3. The traveler enters the payment details (credit card information or PayPal login).
4. The traveler confirms the payment.
5. The system processes the payment securely.
6. If the payment is successful, the system generates a booking confirmation.
7. The system sends a confirmation email and e-ticket to the traveler.
8. The traveler receives the confirmation email and e-ticket.