**Use Cases (Final) for Travel Buddy System Wiki URL:**

<https://github.com/srikarmiriyala/GDPProject-02/wiki/Use-Cases-(Iteration-2)>

**Use Cases (Final) for Travel Buddy System:**

**Use Case 1: User Registration and Profile Creation**

* **Functionality:**
  + Collect registration details: email, password, personal info.
  + Grant access to personalized dashboards.
* **Input:** User details: email, password, name, DOB.
* **Execution:** Validate and securely store data.
* **Output:** Confirmation of successful registration, access to dashboard.

**Use Case 2: Travel Preferences Customization**

* **Functionality:**
  + Access profile settings to customize preferences.
  + Securely save and update preferences.
* **Input:** User preferences for seating.
* **Execution:** Save preferences securely.
* **Output:** Confirmation of successful customization.

**Use Case 3: Trip Planning and Destination Selection**

* **Functionality:**
  + Accept user input for destination, dates, budget.
  + Present destination, flight options.
* **Input:** User preferences: destination, dates, budget.
* **Execution:** Retrieve and present relevant options.
* **Output:** Present various options, confirm selected itinerary.

**Use Case 4: Interactive Map Exploration**

* **Functionality:**
  + Grant access to interactive maps.
  + Offer real-time info and recommendations.
* **Input:** User inputs: destinations, preferences.
* **Execution:** Retrieve data, present interactive map.
* **Output:** Display interactive map with recommendations.

**Use Case 5: Flight Booking and Payment**

* **Functionality:**
  + Allow flight search, selection, booking, payment.
* **Input:** Destination, dates, preferences, payment info.
* **Execution:** Retrieve flights, process booking, payment.
* **Output:** Confirmation of successful booking, receipt.

**Use Case 6: Calendar View and Itinerary Management**

* **Functionality:**
  + Grant access to calendar view of itineraries.
  + Synchronize data, provide notifications.
* **Input:** Itinerary details.
* **Execution:** Populate calendar, issue notifications.
* **Output:** Display itinerary with notifications.

**Use Case 7: Secure Data Storage and Retrieval**

* **Functionality:**
  + Securely store, retrieve user data.
* **Input:** User data: profile, preferences, bookings.
* **Execution:** Implement secure storage, retrieval.
* **Output:** Confirmation of secure storage, retrieval.

**Use Case 8: Intuitive User Interface**

* **Functionality:**
  + Design user-friendly interface.
  + Ensure compatibility, responsiveness.
* **Input:** User interactions.
* **Execution:** Design based on UX principles.
* **Output:** Present user-friendly interface.

**Use Case 9: Flight Options Filtering**

* **Functionality:**
  + Allow search, filter flights by criteria.
* **Input:** Search criteria: airline, time, price.
* **Execution:** Retrieve, filter options.
* **Output:** Display filtered options for selection.

**Use Case 10: Trip Packing Checklist**

* **Functionality:**
  + Provide users with a built-in checklist feature to assist in packing and preparing for trips, ensuring they include essential items and documents.
* **Input:**
  + User creates and customizes a packing checklist with necessary items and documents (e.g., passport, tickets, clothing, toiletries, chargers).
* **Execution:**
  + The system securely saves the user's checklist. Users can access, update, and check off items as they pack, ensuring they do not forget anything.
* **Output:**
  + Confirmation of the successfully saved checklist, along with notifications for each item checked off, indicating it has been packed.

These use cases cover various functionalities of the Travel Buddy platform, from user registration to trip planning, booking, payment, and data management.