

Use Cases Iteration 2

Use Case 4: Book a Trip

Use Case ID and Name: UC4 – Book a Trip

Primary Actor: Client

Stakeholders and Interests:

- **Client:** Wants to book a trip for themselves or their family/friends, with one or more reservations, and receive tickets confirming each reservation.
- **System Developer:** Wants the booking process to properly create trips, reservations, and tickets, ensuring each has a unique identifier and all client data is recorded.

Preconditions:

- The Client has already done a successful search for connections and has selected one or more connections.
- Each traveller's name, age, and ID are available.

Success Guarantee (Postconditions):

- A trip is created containing one or more reservations.
- Each reservation is documented with a ticket, which has a unique ID.
- The trip is assigned a unique alphanumeric ID.
- All client and trip information is stored in the system.

Main Success Scenario (Basic Flow):

1. The Client selects the connection(s) they wish to book from the search results.
2. The System prompts the Client to enter traveller details: name, age, and ID, for each traveller.
3. The Client enters the required information for each traveller.

4. The System validates the input
5. The System creates a **Reservation** for each traveller.
6. For each Reservation, the System generates a **Ticket** with a unique numerical ID.
7. The System creates a **Trip** to hold all Reservations for this booking.
8. The System assigns a unique alphanumeric ID to the Trip.
9. The System stores the Trip, Reservations, and Tickets in the database.
10. The System confirms the successful booking to the Client and displays the trip details.

Extensions:

- **Invalid Traveller Data:** If a traveller's name, age, or ID is invalid or missing, the System displays an error message and prompts for correction.
- **Duplicate Reservation:** If a traveller already has a reservation for the selected connection, the System displays an error message and prevents duplicate booking.

Special Requirements:

- The system must ensure unique IDs for each Ticket and Trip

Technology and Data Variations List:

- Traveller IDs could correspond to state IDs, passports, or any unique identifier.
- Trips may include multiple reservations for group bookings or a single reservation for single traveller.

Open Issues:

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Use Case 5: View Trips

Use Case ID and Name: UC5 – View Trips

Primary Actor: Client

Stakeholders and Interests:

- **Client:** Wants to view all their booked trips, including current (today's or upcoming) and past trips, so they can manage or review their travel history.
- **System Developer:** Wants the system to accurately retrieve trips based on client identification and display them in a clear format.

Preconditions:

- The Client has at least one trip booked in the system.
- The Client knows their last name and ID used during booking.

Success Guarantee (Postconditions):

- All trips associated with the Client are retrieved and displayed.
- Past trips are organized into a history collection, separate from current/future trips.
- Client can view trip details, including reservations and ticket information.

Main Success Scenario (Basic Flow):

1. The Client selects the "View Trips" option from the main menu.
2. The System prompts the Client to enter their last name and ID.
3. The Client enters their last name and ID.
4. The System validates the input against stored client records.
5. The System retrieves all trips associated with the Client.
6. The System separates trips into current/future trips and past trips.
7. The System displays the trips in a structured format, including:
 - Trip ID
 - Reservations in the trip
 - Ticket IDs and travel class
 - Connection details (departure/arrival cities and times)
8. The System allows the Client to browse past trips (history collection).

Extensions (Alternative Flows):

- **No Trips Found:** If the Client has no trips, the System displays a message: "No trips found for the entered credentials."
- **Invalid Input:** If the last name or ID does not match any records, the System displays an error message and prompts for re-entry.

Special Requirements:

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Technology and Data Variations List:

- Client ID could correspond to state ID, passport number, or another unique identifier.
- Trips may contain one or multiple reservations.

Open Issues:

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