Operation Contracts for Iteration 2

OPERATION CONTRACT: bookTrip

Operation: bookTrip()

Responsibilities: Create a trip booking with reservations and tickets for one or more travellers.

Preconditions:

- Routes catalog has been loaded
- Travellers array is not empty
- Connection object is valid

Postconditions:

- A new Trip instance was created
- Trip was assigned a unique alphanumeric ID
- One Reservation was created for each traveller
- Each Reservation was assigned a unique numerical Ticket ID
- Trip was saved to storage
- No duplicate reservation exists for same traveller and connection

Input: Array of travellers (each with name, age, id) and a selected connection object.

Output: Trip object with unique Trip ID, reservations array (each with unique Ticket ID and traveller info), and success message.

OPERATION CONTRACT: viewTrips

Operation: viewTrips()

Responsibilities: Retrieve and display all trips for a specific traveller, separated by status

Preconditions:

- Trips storage (trips.json) exists and is accessible
- lastName and id are provided

Postconditions:

- Trips matching the traveller were retrieved
- Trips were filtered into current (today/future) and past (history)
- Both collections were returned to client
- Input: Traveller's lastName and id as query parameters

Output: Current Trips and Past Trips.