Operation Contracts

Operation Contract: findTrip

Operation: findTrip (parameterType, parameterValue)

Precondition**:**
- None

Postcondition**:**
- A list of Trip objects, t, is created.
- Zero, one, or many Trip objects may be created based on search criteria.
- The created Trip objects are appended to the list t.
- The system displays list t

Operation Contract: sortTrip

Operation: sortTrip(parameterType)

Precondition:
- A list of trips exists.

Postcondition:
- The same Trip objects are returned in a new sorted order.
- The sorted list is displayed.

Operation Contract: selectTrip

Operation: selectTrip(tripId)

Precondition:
- Trip exists

Postcondition:
- Trip details are displayed

Operation Contract: provideTravellers

Operation: provideTravellers(listOfClients)

Precondition:
- Trip object has been selected
- User provides client information (first name, last name, id, age)

Postcondition:
- List of Client objects is created one for each traveller
- List of clients is stored and ready to be used in the booking process

Operation Contract: bookTrip

Operation: bookTrip(listOfClients,tripId)

Precondition:
- List of clients is not empty
- Trip exists
- User is authenticated

Postcondition:
- New BookedTrip object is created
- For each Client, a Reservation object is created and linked to a new Ticket
- All Reservation objects are aggregated into the BookedTrip
- BookedTrip is stored in the TripHistory
- Confirmation message and booking details are returned to user

Operation Contract: authenticateOrIdentify

Operation: authenticateOrIdentify(lastName,id)

Precondition:
- The user provides their information (last name and client ID)

Postcondition:
- System validates that client with matching last name and ID exists
- Session is established for that client

Operation Contract: viewTripHistory
Operation: viewTripHistory(lastName, id)

Precondition:
- The client is authenticated
- The system has a non-empty TripHistory

Postcondition:
- A list of BookedTrip objects associated with given client is retrieved
- Zero, one or many BookedTrip objects are returned

Operation Contract: displayTripDetails
Operation: displayTripDetails(bookedTripId)

Precondition:
- Selected bookedTripId exists in system

Postcondition:
- The system retrieves specific BookedTrip and all associated Reservation and Ticket details
- Trip details are displayed to user