

CSVLoader (String filepath)

Use case: Load Railway Data

Preconditions:

1. File on filepath exist
2. File format is correct (CSV file)

Postconditions:

1. Instance(s) of TrainConnection, connection, is created (instance creation)

SearchConnection (List<TrainConnection> connections, String departureCity, String arrivalCity, String departureTime, String arrivalTime, String trainType, Double firstClassTicketPrice, Double secondClassTicketPrice)

Use case: Search Connection

Preconditions:

1. An instance of TrainConnections (List of all TrainConnection) already exist
2. All parameters are valid or null (and at least one exist in TrainConnections)

Postconditions:

1. Instance of MultipleStopsMetric, match, is created (that match the parameters for direct connection) (instance creation)

BuildTrips (List<TrainConnection> connections, String departureCity, String arrivalCity)

Use case: Search Multiple Connections

Preconditions:

1. List of TrainConnection already exist
2. departureCity and arrivalCity are valid and there is a TrainConnection with either departureCity or arrivalCity

Postconditions:

1. An instance of MultipleStopMetric, trip, has been created (instance creation)

CreateReservation (Client[] clients, List<TrainConnection> chosenConnections)

Use case: Create a reservation (book a trip)

Preconditions:

1. An instance of TrainConnection (List of selected TrainConnection already exist)

2. An instance of Client (List of Client for reservation already exist)

Postconditions:

1. Instance of Ticket, ticket, is created (instance creation)
2. Instance of Reservation, reservation, is created (has client, ticket and chosenConnections) (instance creation)
3. Instance of Trip, trip, is created (has reservation(s)) (instance creation)

LayoverPolicy (List<MultipleStopsMetric> results)

Use case: Give trips that follow a policy

Preconditions:

1. An instance of MultipleStopsMetric (List of found TrainConnection already exist)

Postconditions:

1. Instance of MultipleStopsMetric, ticket, is created (that follows the layover policy of less than 2h during the day (6h-18h) or less than 30min (18h-6h) for a layover) (instance creation)