Test Cases

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1 Introduction

This is the introduction section of my document.

2 Test Scenario 1: City and Train Management

2.1 Test Case 1.1: Add a New City

Description: Verify that a new city can be added to the system.
Preconditions:

- The system is running.

- The user is authorized to add a new city.

Steps:

1. Add a new city.

Expected Result: The city should be added to the list of cities in the system.

2.2 Test Case 1.2: Add a New Train

Description: Verify that a new train can be added to the system.
Preconditions:

- The system is running.

- The user is authorized to add a new train.

Steps:

1. Add a new train.

Expected Result: The new train should be added to the list of trains in the system.

3 Test Scenario 2: Trip Management

3.1 Test Case 2.1: Create a New Trip

Description: Verify that a new trip can be added to the system considering the specific constraints.
Preconditions:

- The system is running.

- The user is authorized to add a new trip.

Steps:

1. Provide valid details for the new trip: Origin

2. Provide valid details for the new trip: Destination

3. Provide valid details for the new trip: Train

4. Provide valid details for the new trip: Departure Time

5. Provide valid details for the new trip: Arrival Time

Expected Result: The new trip should be created and registered in the system.

3.2 Test Case 2.2: Cancel Trip

Description: Verify that a trip can be canceled in the system.
Preconditions:

- The system is running.

- The user is authorized to cancel a trip.

Steps:

1. Select a trip to cancel

Expected Result: The selected trip should be canceled, and all associated tickets should also be canceled.

4 Test Scenario 3: Ticket Booking and Cancellation

4.1 Test Case 3.1: Book a Ticket

Description: Verify that a new ticket can be booked for a trip if the trip has not reached the maximum number of passengers.
Preconditions:

- The system is running.

- The user is authorized to book a ticket.

- There is an available trip.

Steps:

1. Select and available trip

2. Provide passenger name

3. Book a ticket

Expected Result: A new ticket should be booked for the selected trip.

4.2 Test Case 3.2: Cancel a Ticket

Description: Verify that a booked ticket can be canceled.
Preconditions:

- The system is running.

- The user has a booked ticket.

Steps:

1. Select a booked ticket

Expected Result: The selected ticket should be canceled, and the trip should be updated accordingly.

4.3 Test Case 3.3: Book a Ticket for a full trip

Description: Verify that a ticket for a full trip cannot be created.
Preconditions:

- The system is running.

Steps:

1. Create a ticket for a trip with max passengers

Expected Result: The ticket should not be booked and it must give an error.

5 Test Scenario 4: Delay Management

5.1 Test Case 4.1: Add Departure Delay to a Trip

Description: Verify that a departure delay can be added to a trip, and it updates the real departure time.
Preconditions:

- The system is running.

- There is a trip available for delay.

Steps:

1. Select a trip

2. Add departure delay

Expected Result: The departure delay should be added to the trip, and the real departure time should be updated accordingly.

5.2 Test Case 4.2: Add Arrival Delay to a Trip

Description: Verify that an arrival delay can be added to a trip, and it updates the real arrival time.
Preconditions:

- The system is running.

- There is a trip available for delay.

Steps:

1. Select a trip

2. Add arrival delay

Expected Result: The arrival delay should be added to the trip, and the real arrival time should be updated accordingly.