Use Cases – Iteration 1

USE CASE 01. Client Finds Connections

ID	UC01
Title	Client Finds Connections
Description	A client should be able to search for 1-stop and 2-stop connections between two European cities.
Primary Actor	Client.
Preconditions	- Client is on the starting (main) menu. - Client has selected option 2. - Client inputs non-empty departure city. - Client inputs non-empty arrival city that is attainable from the departure city with at least one connection.
Postconditions	None. The system isn't modified after a connections search.
Inputs	- Departure city. - Arrival city.
Outputs	All connections that link the departure city and the arrival city in a (direct) 1-stop and (indirect) 2-stop manner, as well as all the properties of the connections are displayed, such as ticket prices, departure and arrival times, etc.
Main Success Scenario	1. Client is on the starting menu of the rail network. 2. Client selects option 2. 3. Client types out departure city. 4. Client types out arrival city. 5. System displays any and all connections that exist from the departure city to the arrival city. All the properties of the connections are displayed, such as ticket prices, departure and arrival times, etc.

USE CASE 02. Client Filters Connections Results

ID	UC02
Title	Client Filters Connections Results
Description	A client should be able to filter the connection search results they retrieved previously.
Primary Actor	Client.
Preconditions	- Client has previously selected option 2.

	- Client has already entered a departure city and an arrival city for which at least one connection exists. - Client is on the filtering menu.
Postconditions	None. The system isn't modified after filtering a connections search.
Inputs	Optional: departure city, arrival city, train type, first class ticket price (minimum and/or maximum), second class ticket price (minimum and/or maximum), departure time (minimum and/or maximum), trip duration (minimum and/or maximum) and/or weekday.
Outputs	All the connections (1-stop and 2-stop) that satisfy the filters provided by the client, as well as all the properties of the connections are displayed, such as ticket prices, departure and arrival times, etc.
Main Success Scenario	1. Client is on the filtering menu and has already provided a departure city and an arrival city. 2. One by one, the system asks the client if they desire to filter with the inputs mentioned above. 3. Client inputs yes or no depending on which filters they desire to apply. 4. System displays any and all connections that exist from the departure city to the arrival city that satisfy all the filters provided by the client. All the properties of the connections are displayed.

USE CASE 03. Client Sorts Connections Results

ID	UC03
Title	Client Sorts Connections Results
Description	A client should be able to sort the filtered connections search results they retrieved previously.
Primary Actor	Client.
Preconditions	- Client has previously selected option 2. - Client has already entered a departure city and an arrival city for which at least one connection exists. - Client is on the sorting menu.
Postconditions	None. The system isn't modified after sorting a filtered connections search.
Inputs	- By what property the client wants to sort. Can be any property. - How the client wants to sort (ascending or descending).
Outputs	All the connections (1-stop and 2-stop) that satisfy the filters provided by the client, sorted in the way that the client provides, as well as all the properties of the connections are displayed, such as ticket prices, departure and arrival times, etc.

Main Success Scenario	1. Client is on the sorting menu. 2. Client selects with what property they want to sort the results. 3. Client selects if they want to sort ascending or descending. 4. System displays all the results of the search with the departure city and the arrival city that the client had entered previously, applied with the filters and the sorting the client has also specified.

USE CASE 04. Client Demands Network Summary

ID	UC04
Title	Client Demands Network Summary
Description	A client
Primary Actor	Client.
Preconditions	- Client is on the main menu. - Client has selected option 1.
Postconditions	None. The system isn't modified after sorting a filtered connections search.
Inputs	None.
Outputs	A list of all departure cities, a list of all arrival cities and a list of all trains.
Main Success Scenario	1. Client is on the main menu and selects option 1. 2. System displays a list of all departure cities, a list of all arrival cities and a list of all trains.

USE CASE 05. Client Demands City Information

ID	UC05
Title	Client Demands City Information
Description	A client should be able to see a selected city's information, for example departures and arrivals from that city and their times, etc.
Primary Actor	Client.
Preconditions	- Client is on the main menu. - Client selects option 3. - Client enters a valid European city (but system can find with a substring).

Postconditions	None. The system isn't modified after sorting a filtered connections search.
Inputs	Valid city name.
Outputs	List of all connections from and to the entered city, as well as all the properties of the connections are displayed, such as ticket prices, departure and arrival times, etc.
Main Success Scenario	1. Client is on the main menu and selects option 3. 2. Client enters a valid city name. 3. System displays all connections from and to the entered city, as well as all the properties of the connections are displayed, such as ticket prices, departure and arrival times, etc.

USE CASE 06. Client Demands Train Info

ID	UC06
Title	Client Demands Train Information
Description	A client should be able to see a selected train's information, such as connections provided by the entered train, as well as the information of such connections.
Primary Actor	Client.
Preconditions	- Client is on the main menu. - Client selects option 4. - Client enters a valid train type (but the system can find with a substring).
Postconditions	None. The system isn't modified after sorting a filtered connections search.
Inputs	Valid train type.
Outputs	List of all connections that are linked by the entered train type, as well as all the properties of the connections are displayed, such as ticket prices, departure and arrival times, etc.
Main Success Scenario	1. Client is on the main menu and selects option 4. 2. Client enters a valid city name. 3. System displays all connections that are linked by the entered train type, as well as all the properties of the connections are displayed, such as ticket prices, departure and arrival times, etc.

USE CASE 07. Client Exists System

ID	UC04
Title	Client Exists System
Description	A client should be able to exit from the system once they are done with their searches.
Primary Actor	Client.
Preconditions	- Client is on the main menu. - Client has selected option 5.
Postconditions	None. The system isn't modified after sorting a filtered connections search.
Inputs	None.
Outputs	Exit message displays
Main Success Scenario	1. Client is on the main menu and selects option 5. 2. System displays an exit/goodbye message and closes.