C++ Project

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Formation: M1 ISI

Output examples:

The errors I show here will arrive for both datasets, the small ones and the big ones.

1. Compilation and execution

The code should be compiled and executed like in the README.txt file.

If we execute the code with too many or not enough arguments, we will get these errors:

Command: ./Itinerary_Calculator data/stations.csv data/connections.csv true

```
Usage: ./Itinerary_Calculator <stations file> <connections file>
Compilation error!
Too many arguments
```

Command : ./Itinerary_Calculator data/stations.csv

```
Usage: ./Itinerary_Calculator <stations file> <connections file>
Compilation error!
Not enough arguments
```

If we mix the datasets:

Command ./Itinerary_Calculator data/stations.csv data/c.csv or
./Itinerary_Calculator data/s.csv data/connections.csv

Or if we put different names:

Command: ./Itinerary_Calculator data/example.csv data/connect.csv

```
Compilation error!
ERROR: The names of the data sets are not correct!
```

2. Small sets

When running the first set you will first be asked if you want to see the demonstration of the read_stations and read_connections methods. You need to press y (or Y) or n (or N). If you press another character:

```
Hello!

Would you like to see the demonstration of read_stations and read_connections? (
y/n) a
Compilation error!
Boolean error - please enter 'y' or 'n'.
```

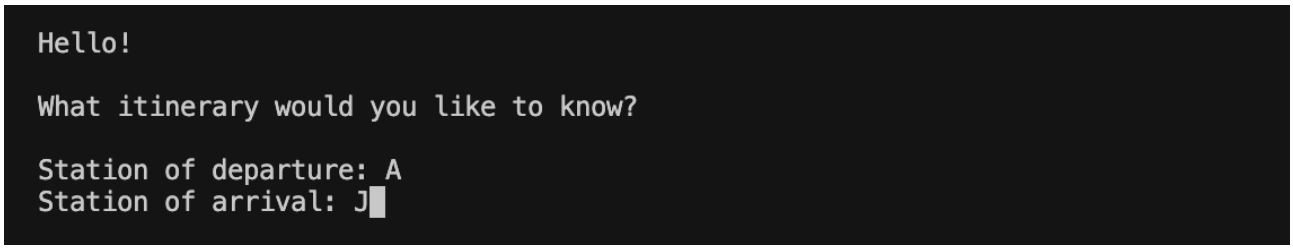
This will be the case for every y/n question that may arrive in the code.

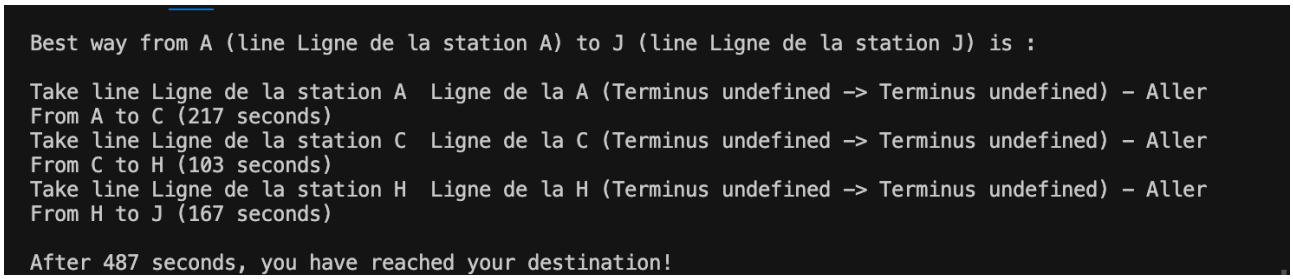
If you press y, you will get this screen, with the demonstration:

```
Stations:

Station: A (line 1)
Station: B (line 2)
Station: C (line 3)
Station: D (line 4)
Station: E (line 5)
Station: F (line 6)
Station: G (line 7)
Station: H (line 8)
Station: I (line 9)
Station: J (line 10)

Connections:

From Station: I (line 9) to Station: J (line 10) in 84 seconds
From Station: I (line 9) to Station: F (line 6) in 250 seconds
From Station: J (line 10) to Station: E (line 5) in 493 seconds
From Station: J (line 10) to Station: I (line 9) in 84 seconds
From Station: J (line 10) to Station: H (line 8) in 167 seconds
From Station: H (line 8) to Station: D (line 4) in 183 seconds
From Station: H (line 8) to Station: C (line 3) in 91 seconds
From Station: H (line 8) to Station: J (line 10) in 167 seconds
From Station: C (line 3) to Station: A (line 1) in 217 seconds
From Station: C (line 3) to Station: H (line 8) in 103 seconds
From Station: C (line 3) to Station: G (line 7) in 186 seconds
From Station: G (line 7) to Station: C (line 3) in 186 seconds
From Station: F (line 6) to Station: B (line 2) in 80 seconds
From Station: F (line 6) to Station: I (line 9) in 278 seconds
From Station: B (line 2) to Station: A (line 1) in 85 seconds
From Station: B (line 2) to Station: F (line 6) in 80 seconds
From Station: E (line 5) to Station: A (line 1) in 173 seconds
From Station: E (line 5) to Station: J (line 10) in 502 seconds
From Station: D (line 4) to Station: H (line 8) in 183 seconds
From Station: A (line 1) to Station: E (line 5) in 173 seconds
From Station: A (line 1) to Station: B (line 2) in 85 seconds
From Station: A (line 1) to Station: C (line 3) in 217 seconds


Press ENTER to go to the itinerary calculation!
```

Here you can press ENTER to get to the itinerary calculator. (If you press ’n’ you will get directly to it)

Example with Station A and station J (they will need to be typed one by one):





The code is not case sensitive so you can write for example a and j and it will work.

If you write the station wrongly, for example, Ax instead of A:

You will receive:

If you type ’n’:

If you type ‘y’, the code will give you the itinerary from A to the arrival station you typed.

3. Big sets

First, you will get this screen:

```
Hello!

What itinerary would you like to know?

Station of departure:
```

Same as before, you can write a station of departure and a station of arrival. Example with Jussieu and Gare du Nord

```
Hello!

What itinerary would you like to know?

Station of departure: Jussieu
Station of arrival: Gare du Nord
```

```
Best way from Jussieu (line 10) to Gare du Nord (line 5) is :

Walk to Jussieu, line 7 (14 seconds)
Take line 7 (LA COURNEUVE - 8 MAI 1945 <-> VILLEJUIF-L. ARAGON / MAIRIE D'IVRY) - Aller
From Jussieu to Châtelet (386 seconds)
Walk to Châtelet, line 4 (248 seconds)
Take line 4 (PORTE DE CLIGNANCOURT <-> MAIRIE DE MONTROUGE) - Aller
From Châtelet to Gare de l'Est (Verdun) (622 seconds)
Walk to Gare de l'Est (Verdun), line 5 (72 seconds)
Take line 5 (BOBIGNY - PABLO PICASSO <-> PLACE D'ITALIE) - Aller
From Gare de l'Est (Verdun) to Gare du Nord (156 seconds)

After 1498 seconds, you have reached your destination!
```

Again, same as the small set, the code is not case sensitive so you can write for example « jussieu » and « gare du nord ».

If the station you typed is wrongly typed, the code will ask you here as well if you meant something else. Example for « jusieu » and « gara de nords ».
Here you can press ‘y’ if it’s the good station, or ’n’ and you will get the « Station error » from

```
Hello!

What itinerary would you like to know?

Station of departure: jusieu
Station of arrival: gara de nords
```

```
jusieu station was not found, did you mean Station: Jussieu (line 2233)? (y/n)
```

before:

```
Stations error!
Station not found
(base) liviu@192-168-0-141 ProjetCPP %
```

Same for the second station:

```
gara de nords station was not found, did you mean Station: Gare du Nord (line 2213)? (y/n)
```

And then we get the result:

```
Best way from Jussieu (line 10) to Gare du Nord (line 5) is :

Walk to Jussieu, line 7 (14 seconds)
Take line 7 (LA COURNEUVE – 8 MAI 1945 <-> VILLEJUIF–L. ARAGON / MAIRIE D'IVRY) – Aller
From Jussieu to Châtelet (386 seconds)
Walk to Châtelet, line 4 (248 seconds)
Take line 4 (PORTE DE CLIGNANCOURT <-> MAIRIE DE MONTROUGE) – Aller
From Châtelet to Gare de l'Est (Verdun) (622 seconds)
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Take line 5 (BOBIGNY – PABLO PICASSO <-> PLACE D'ITALIE) – Aller
From Gare de l'Est (Verdun) to Gare du Nord (156 seconds)

After 1498 seconds, you have reached your destination!
```

4. Miscellaneous (Errors for stations)

If for any of the stations, you press enter without typing any character, you will get:

```
 Stations error!
 At least one station was not entered!
(base) liviu@192-168-0-141 ProjetCPP %
```

If you type the same station for arrival and departure:

```
 Stations error!
 You entered the same station for departure and arrival!
(base) liviu@192-168-0-141 ProjetCPP %
```