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ID : 0683640

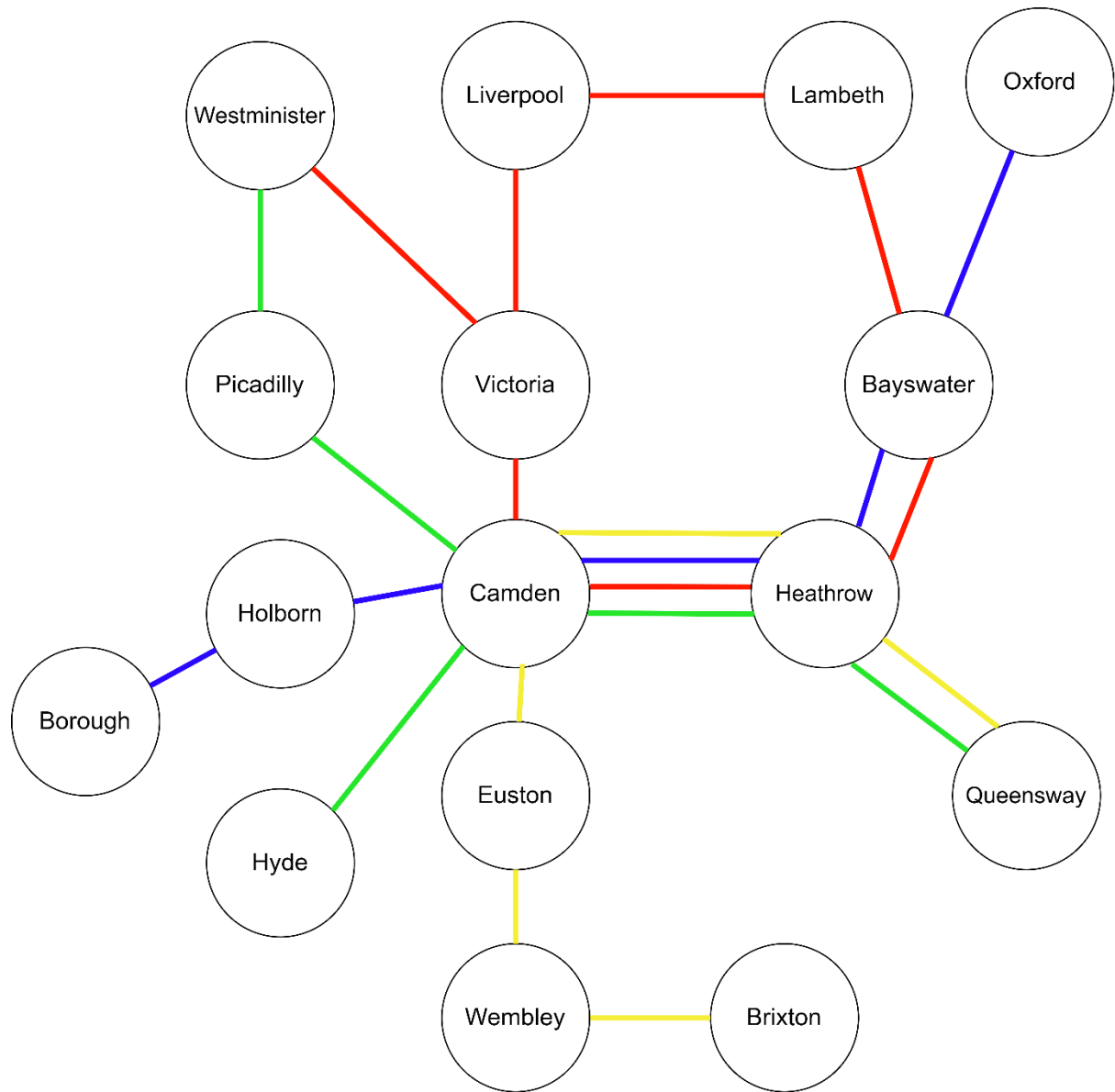
Testing Document for COIS 3020 Assignment\_1.

(subway map has also been attached separately)

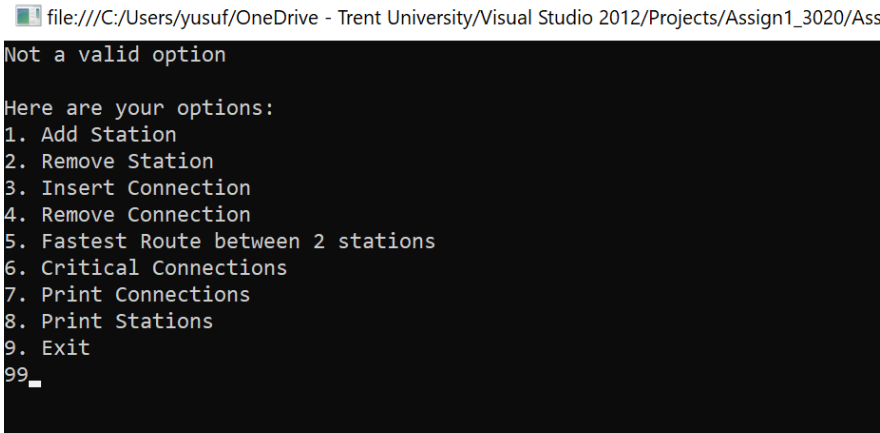
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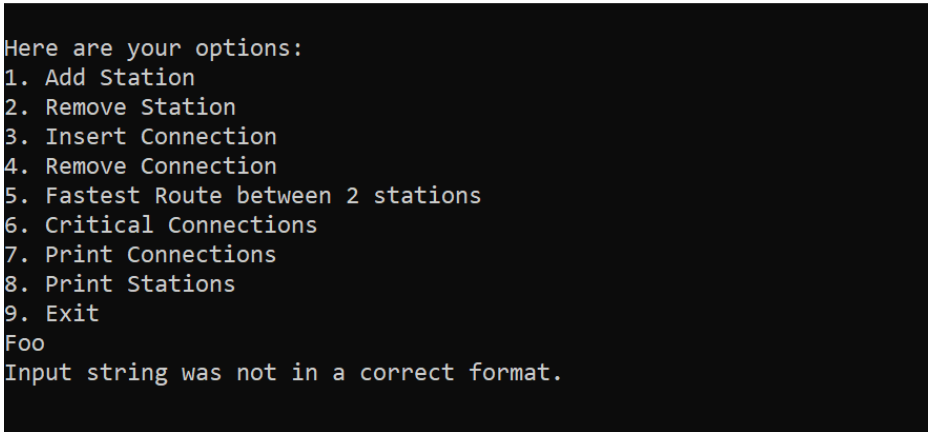
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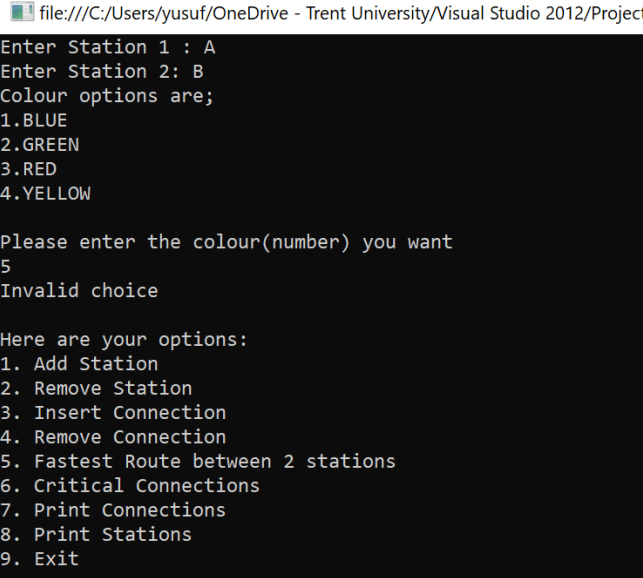
## Subway Map

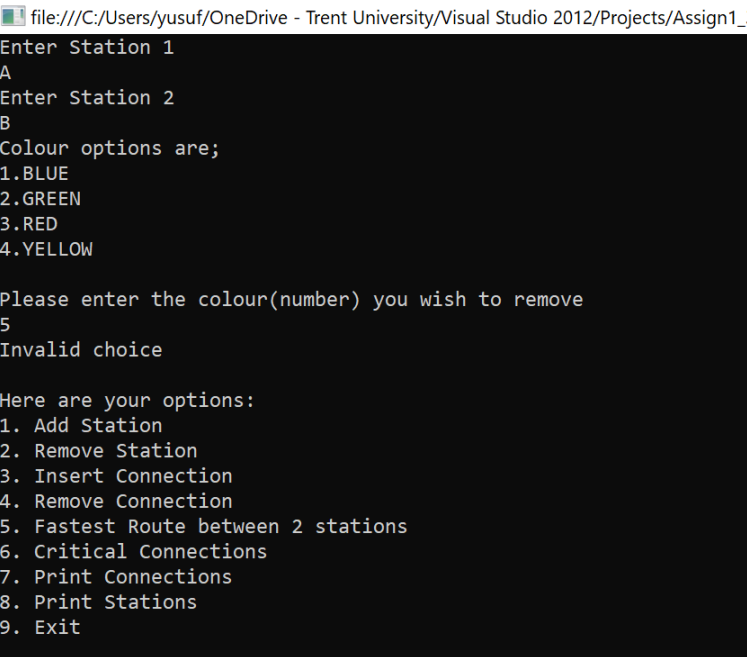


## Validating Input for Main

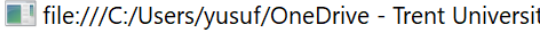
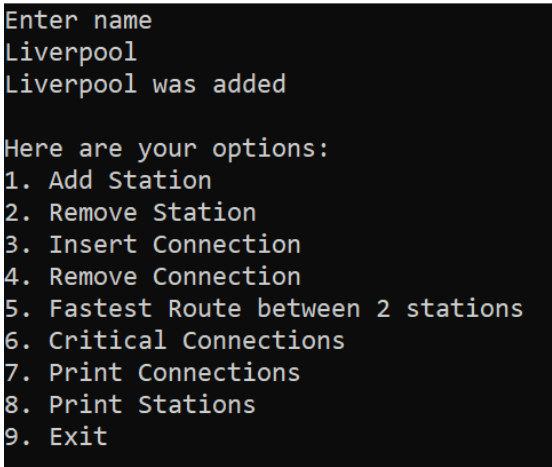
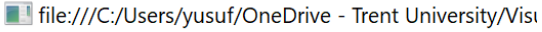
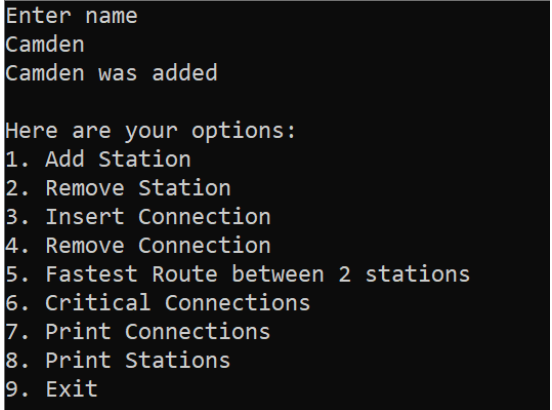
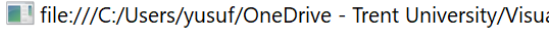
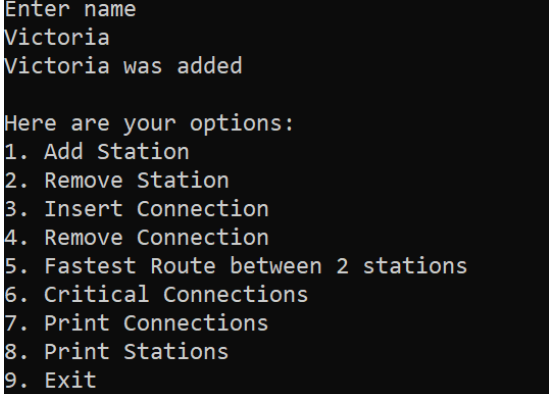
Test 1	
<b>Description</b>	Testing for invalid option selection
<b>Input</b>	99
<b>Expected Output</b>	"Not a valid option"
<b>Actual Output</b>	 <pre>file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3020/Ass Not a valid option  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit 99_</pre>

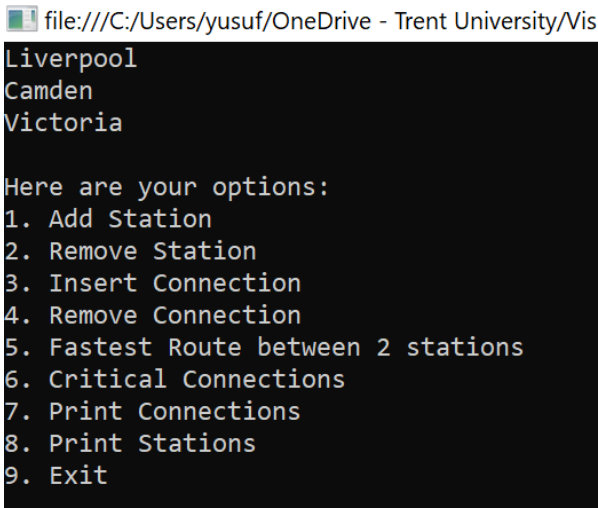
Test 2	
<b>Description</b>	Testing for invalid format input
<b>Input</b>	"Foo"
<b>Expected Output</b>	"Input string was not in a correct format"
<b>Actual Output</b>	 <pre>file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3020/ Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit Foo Input string was not in a correct format.</pre>

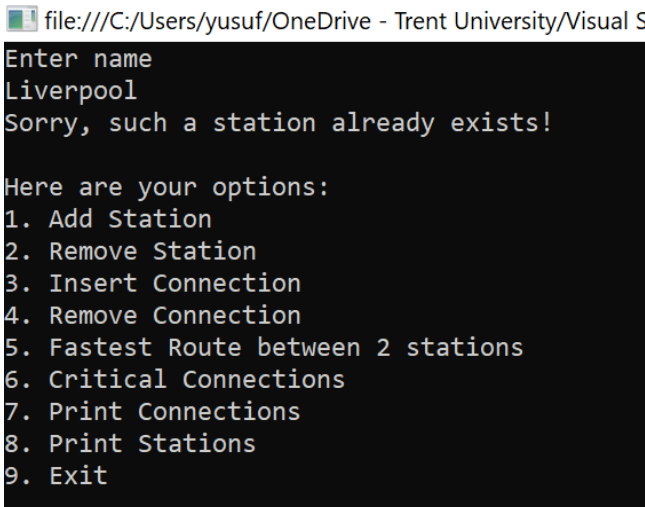
Test 3	
<b>Description</b>	Testing for wrong input when specifying a colour to insert a connection(edge).
<b>Input</b>	3, (for inserting a connection) then 5 for invalid colour choice
<b>Expected Output</b>	"Invalid Choice"
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Project Enter Station 1 : A Enter Station 2: B Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you want 5 Invalid choice  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

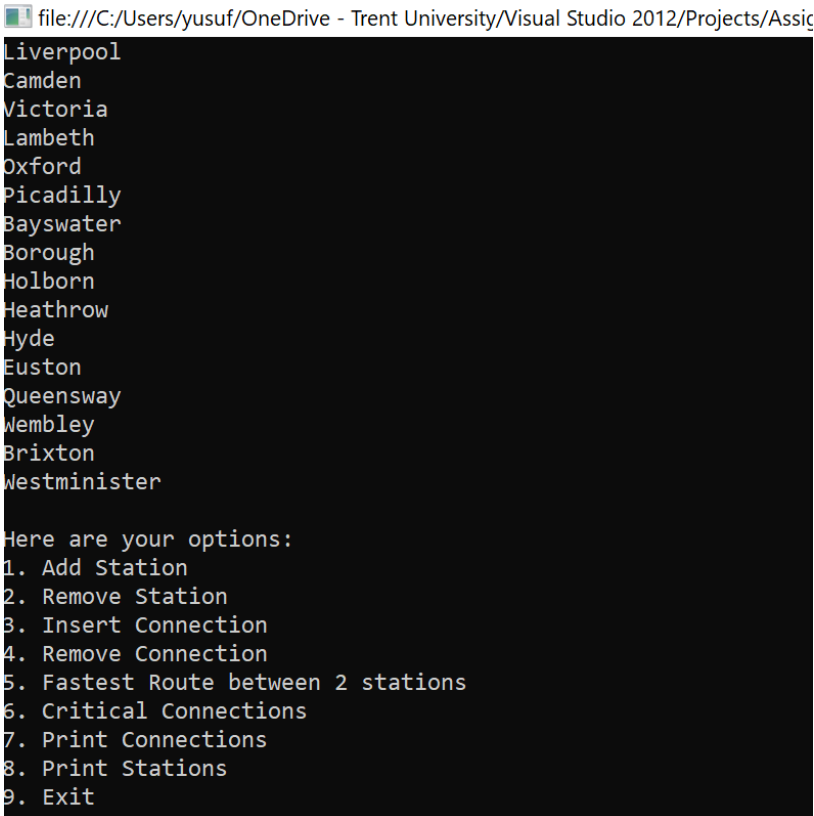
Test 4	
<b>Description</b>	Testing for wrong input when specifying a colour when removing a connection(edge).
<b>Input</b>	4, (for removing a connection) then 5 for invalid colour choice
<b>Expected Output</b>	"Invalid Choice"
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3 Enter Station 1 A Enter Station 2 B Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you wish to remove 5 Invalid choice  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

## Inserting Stations

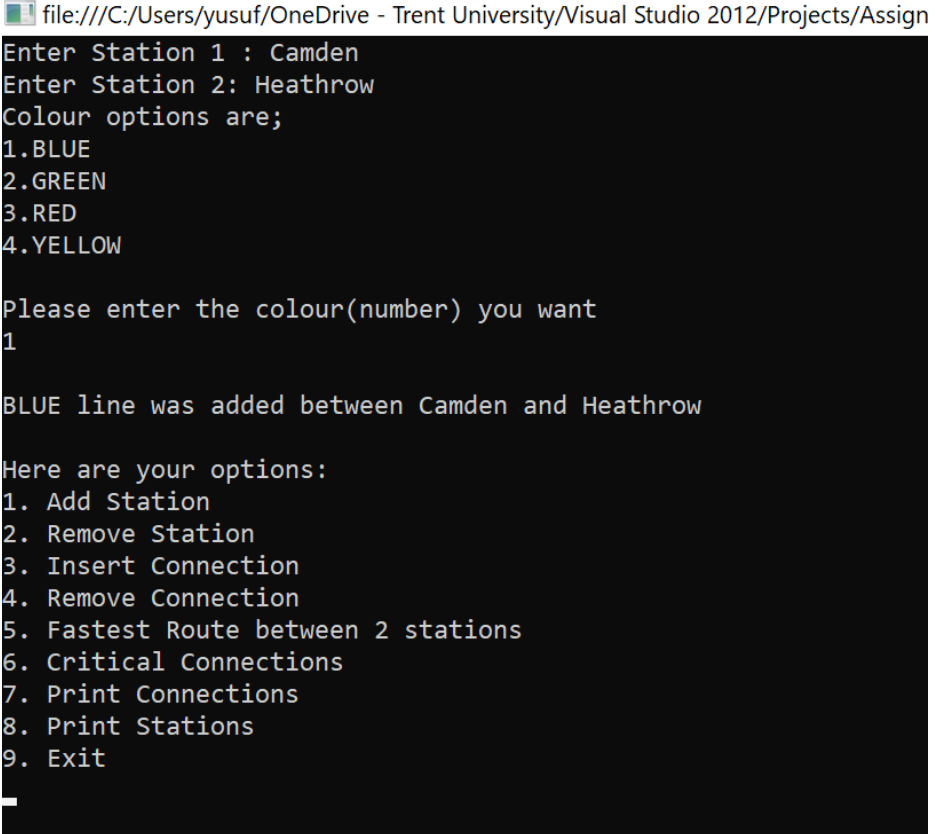
Test 5	
<b>Description</b>	Adding a few stations from the Subway map attached
<b>Input</b>	1,for adding stations and 7 to print them
<b>Expected Output</b>	List of stations that were added.
<b>Actual Output</b>	<div>file:///C:/Users/yusuf/OneDrive - Trent Universit</div> <div><pre>Enter name Liverpool Liverpool was added  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit</pre></div> <div>file:///C:/Users/yusuf/OneDrive - Trent University/Visi</div> <div><pre>Enter name Camden Camden was added  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit</pre></div> <div>file:///C:/Users/yusuf/OneDrive - Trent University/Visua</div> <div><pre>Enter name Victoria Victoria was added  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit</pre></div>

	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Vis Liverpool Camden Victoria  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>
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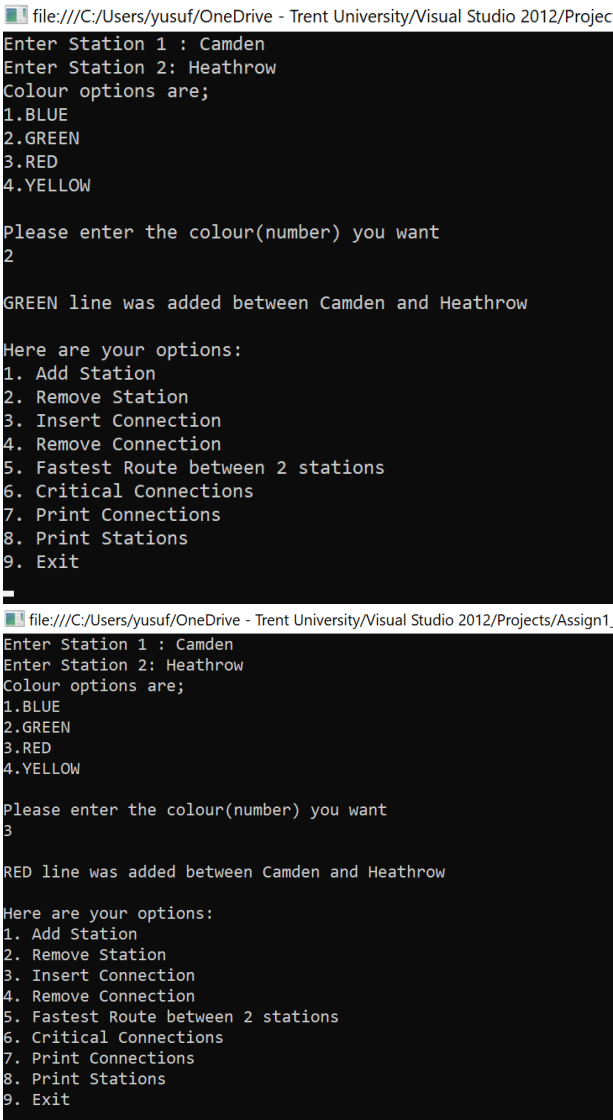
Test 6	
<b>Description</b>	Trying to add a station which already exists
<b>Input</b>	1, to add a station and "Liverpool" (again)
<b>Expected Output</b>	"Such a station already exists!"
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual S Enter name Liverpool Sorry, such a station already exists!  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

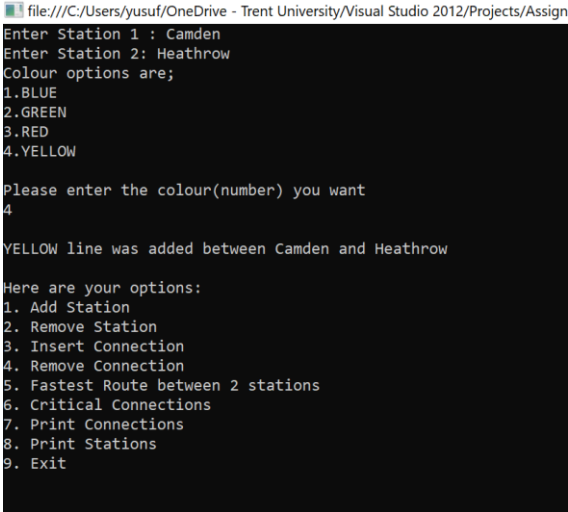
Test 7	
<b>Description</b>	Replicating the Subway map attached by adding all the stations
<b>Input</b>	Adding all the stations and then entering 7 to print them
<b>Expected Output</b>	List of all the stations(16)
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assig Liverpool Camden Victoria Lambeth Oxford Picadilly Bayswater Borough Holborn Heathrow Hyde Euston Queensway Wembley Brixton Westminster  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

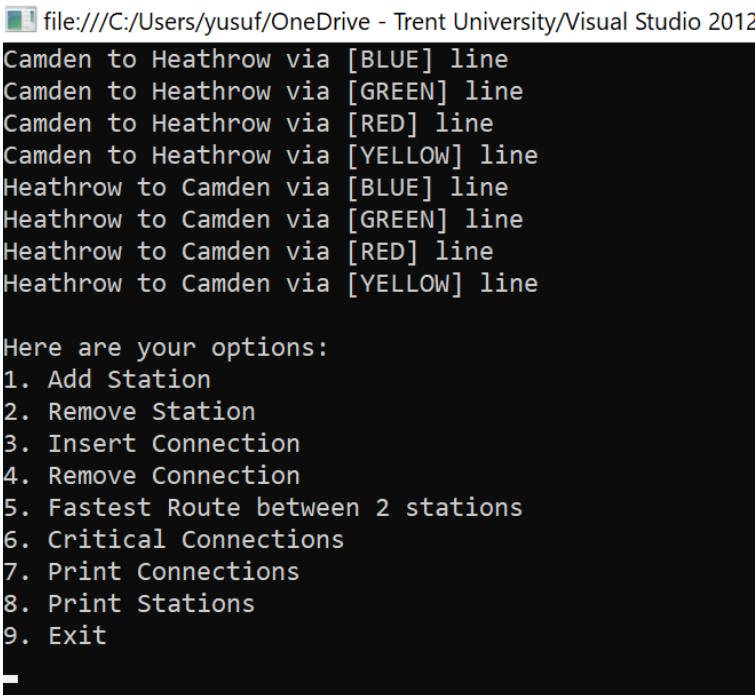
## Adding Connections

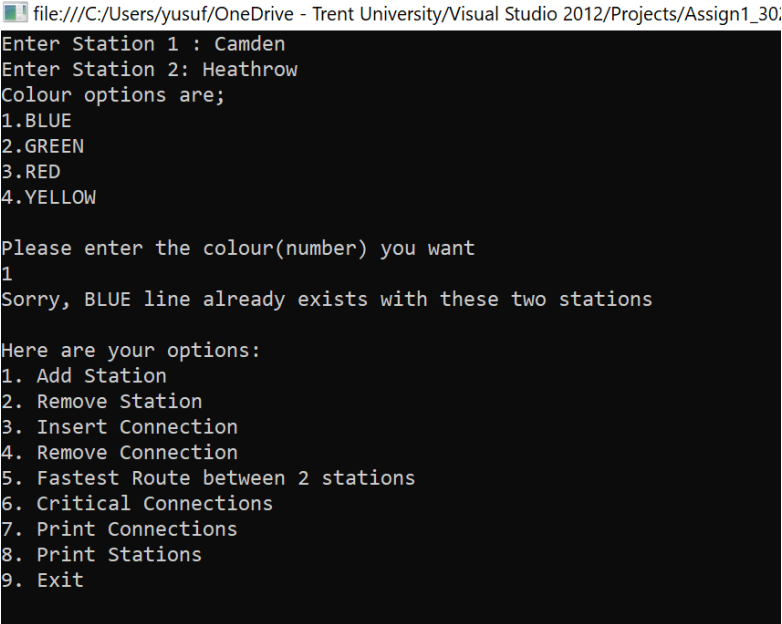
Test 8	
<b>Description</b>	Adding a connection between stations
<b>Input</b>	3, for inserting a connection then selecting 'Camden' and 'Heathrow' as the stations' to insert a connection and then Colour Blue for the line between them
<b>Expected Output</b>	"BLUE line was added between Camden and Heathrow"
<b>Actual Output</b>	 <pre>file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign Enter Station 1 : Camden Enter Station 2: Heathrow Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you want 1  BLUE line was added between Camden and Heathrow  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit _</pre>

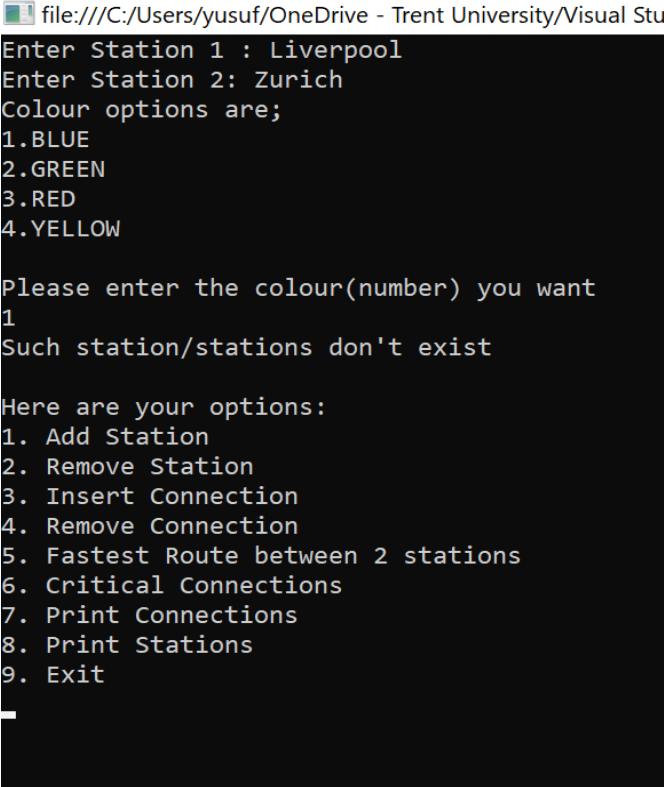



Test 9	
<b>Description</b>	Adding a connection between stations
<b>Input</b>	3, for inserting a connection then selecting 'Camden' and 'Heathrow' (again, but different colours )as the stations' to insert a connection and then Colour Green,Red,Yellow for the line between them
<b>Expected Output</b>	"GREEN,RED,YELLOW, line was added between Camden and Heathrow"
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projec Enter Station 1 : Camden Enter Station 2: Heathrow Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you want 2  GREEN line was added between Camden and Heathrow  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit _  file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1 Enter Station 1 : Camden Enter Station 2: Heathrow Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you want 3  RED line was added between Camden and Heathrow  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign Enter Station 1 : Camden Enter Station 2: Heathrow Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you want 4  YELLOW line was added between Camden and Heathrow  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>
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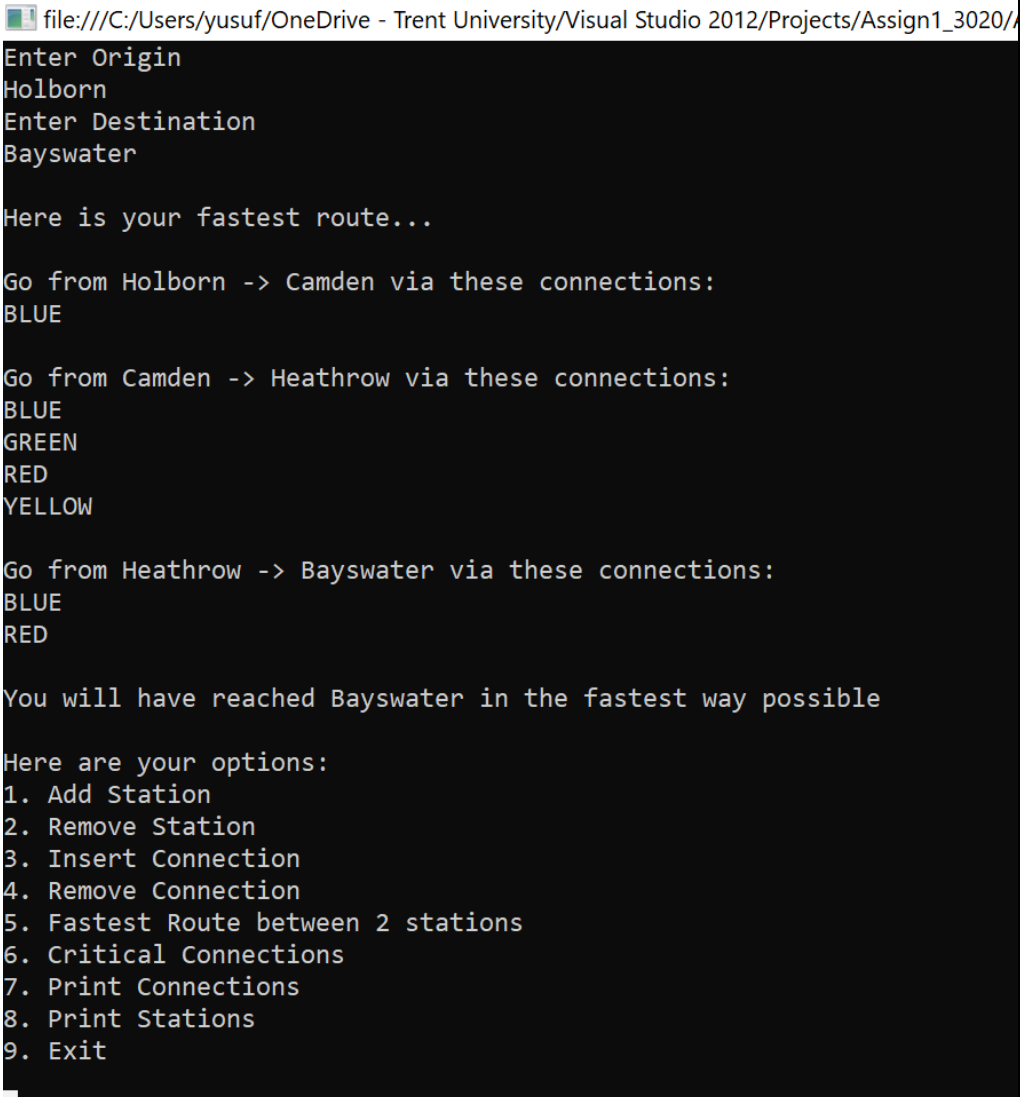
Test 10	
<b>Description</b>	Printing the connections inserted so far. (Camden & Heathrow)
<b>Input</b>	7, for printing connections
<b>Expected Output</b>	List of all the connections in the graph, so far. It will show up twice because the Graph is undirected.
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012 Camden to Heathrow via [BLUE] line Camden to Heathrow via [GREEN] line Camden to Heathrow via [RED] line Camden to Heathrow via [YELLOW] line Heathrow to Camden via [BLUE] line Heathrow to Camden via [GREEN] line Heathrow to Camden via [RED] line Heathrow to Camden via [YELLOW] line  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

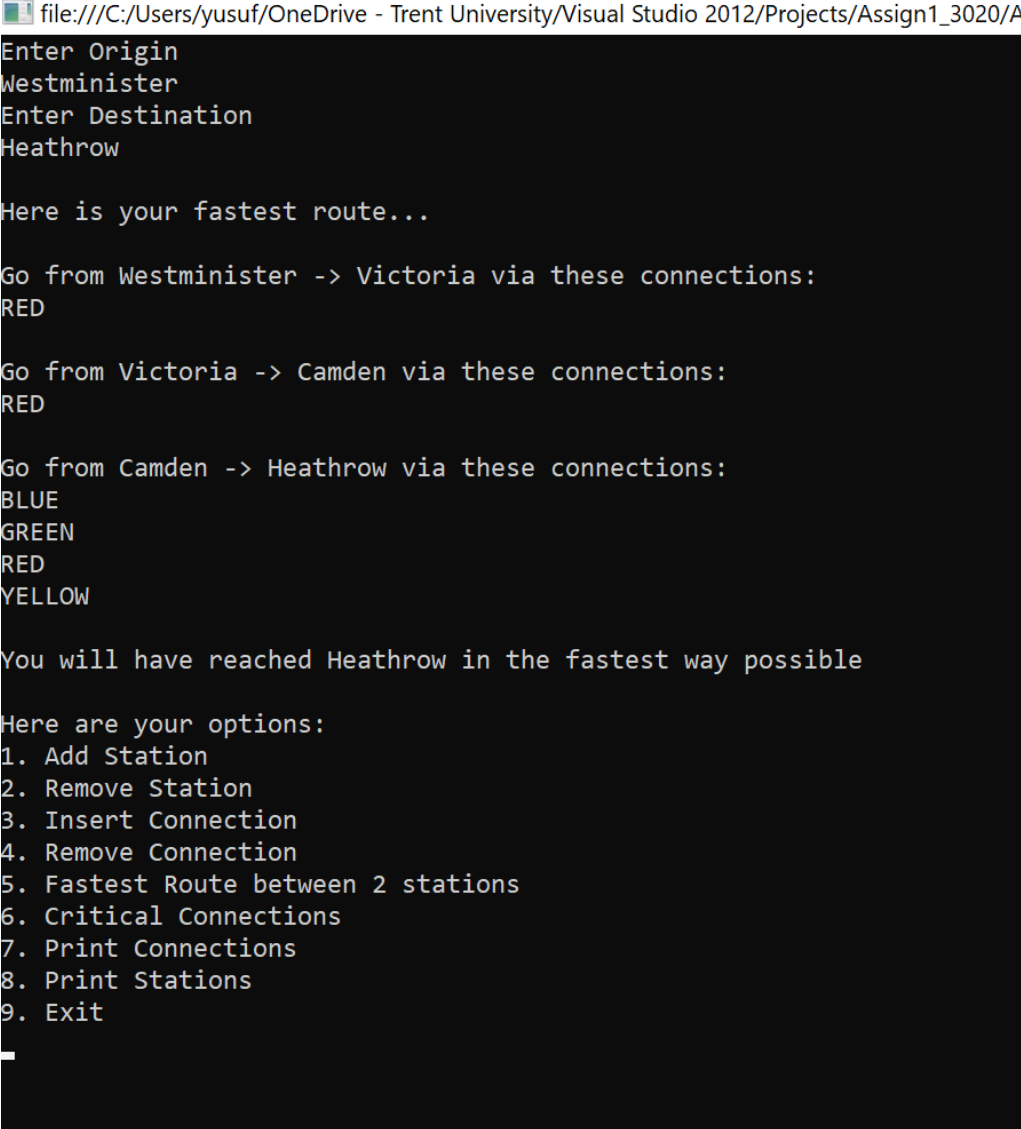
Test 11	
<b>Description</b>	Adding a connection which already exists between two stations
<b>Input</b>	3, for inserting a connection then selecting 'Camden' and 'Heathrow' and trying to insert Colour Blue again
<b>Expected Output</b>	"Sorry, BLUE line already exists between these two stations.
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_30: Enter Station 1 : Camden Enter Station 2: Heathrow Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you want 1 Sorry, BLUE line already exists with these two stations  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

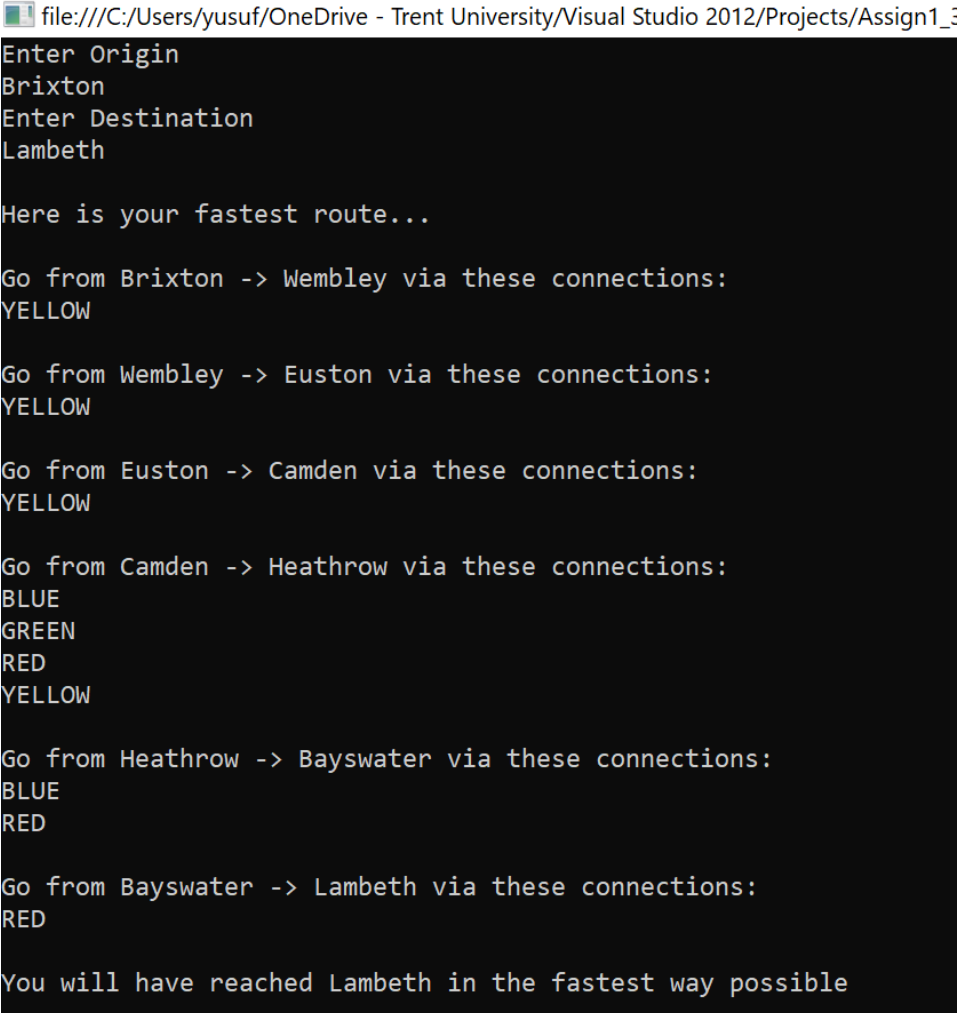
Test 12	
<b>Description</b>	Adding a connection between a station that doesn't exist. Zurich doesn't exist in the system
<b>Input</b>	3, for inserting a connection then selecting 'Liverpool' and 'Zurich'.
<b>Expected Output</b>	"Such station/stations don't exist"
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Stu Enter Station 1 : Liverpool Enter Station 2: Zurich Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you want 1 Such station/stations don't exist  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

Test 13	
<b>Description</b>	Added all the connection as per the Subway Map attached.
<b>Actual Output</b>	 file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3020/A Liverpool to Victoria via [RED] line Liverpool to Lambeth via [RED] line Camden to Heathrow via [BLUE] line Camden to Heathrow via [GREEN] line Camden to Heathrow via [RED] line Camden to Heathrow via [YELLOW] line Camden to Euston via [YELLOW] line Camden to Hyde via [GREEN] line Camden to Holborn via [BLUE] line Camden to Victoria via [RED] line Camden to Picadilly via [GREEN] line Victoria to Liverpool via [RED] line Victoria to Camden via [RED] line Victoria to Westminster via [RED] line Lambeth to Liverpool via [RED] line Lambeth to Bayswater via [RED] line Oxford to Bayswater via [BLUE] line Picadilly to Westminster via [GREEN] line Picadilly to Camden via [GREEN] line Bayswater to Lambeth via [RED] line Bayswater to Oxford via [BLUE] line Bayswater to Heathrow via [BLUE] line Bayswater to Heathrow via [RED] line Borough to Holborn via [BLUE] line Holborn to Camden via [BLUE] line Holborn to Borough via [BLUE] line Heathrow to Camden via [BLUE] line Heathrow to Camden via [GREEN] line Heathrow to Camden via [RED] line Heathrow to Camden via [YELLOW] line Heathrow to Bayswater via [BLUE] line Heathrow to Bayswater via [RED] line Heathrow to Queensway via [GREEN] line Heathrow to Queensway via [YELLOW] line Hyde to Camden via [GREEN] line Euston to Camden via [YELLOW] line Euston to Wembley via [YELLOW] line Queensway to Heathrow via [GREEN] line Queensway to Heathrow via [YELLOW] line Wembley to Euston via [YELLOW] line Wembley to Brixton via [YELLOW] line Brixton to Wembley via [YELLOW] line Westminster to Victoria via [RED] line Westminster to Picadilly via [GREEN] line

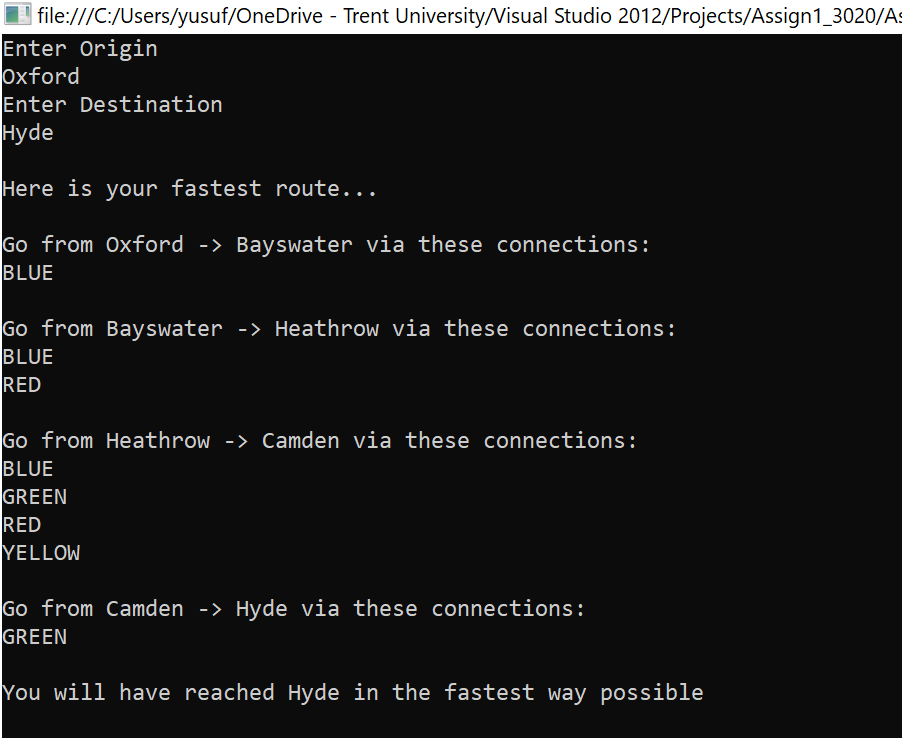
## Fastest Route

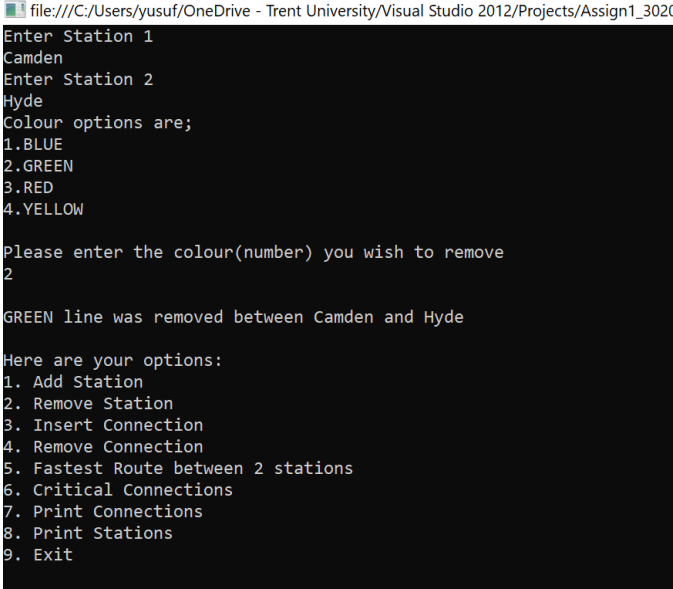
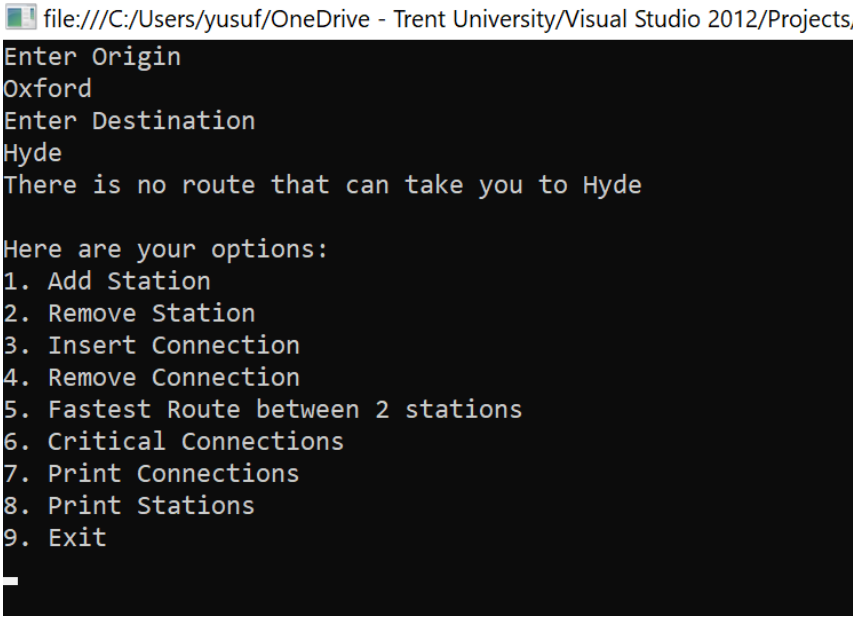
Test 14	
<b>Description</b>	Fastest Route (Breadth First Search)
<b>Input</b>	5, for option and, 'Holborn' as my origin and 'Bayswater' as my destination. (There are multiple ways to get there but BFS will enable us to find the fastest one i.e the first time I hit 'Bayswater', that's the fastest path.
<b>Expected Output</b>	The fastest route. (I added all the possible lines you can take to, if available, from a station to another.
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3020/ Enter Origin Holborn Enter Destination Bayswater  Here is your fastest route...  Go from Holborn -&gt; Camden via these connections: BLUE  Go from Camden -&gt; Heathrow via these connections: BLUE GREEN RED YELLOW  Go from Heathrow -&gt; Bayswater via these connections: BLUE RED  You will have reached Bayswater in the fastest way possible  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

Test 15	
<b>Description</b>	Fastest Route
<b>Input</b>	Trying for more cases, now origin is Westminster & Destination is Heathrow
<b>Expected Output</b>	The fastest route. (I added all the possible lines you can take to, if available, from a station to another.
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3020/A Enter Origin Westminster Enter Destination Heathrow  Here is your fastest route...  Go from Westminster -&gt; Victoria via these connections: RED  Go from Victoria -&gt; Camden via these connections: RED  Go from Camden -&gt; Heathrow via these connections: BLUE GREEN RED YELLOW  You will have reached Heathrow in the fastest way possible  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

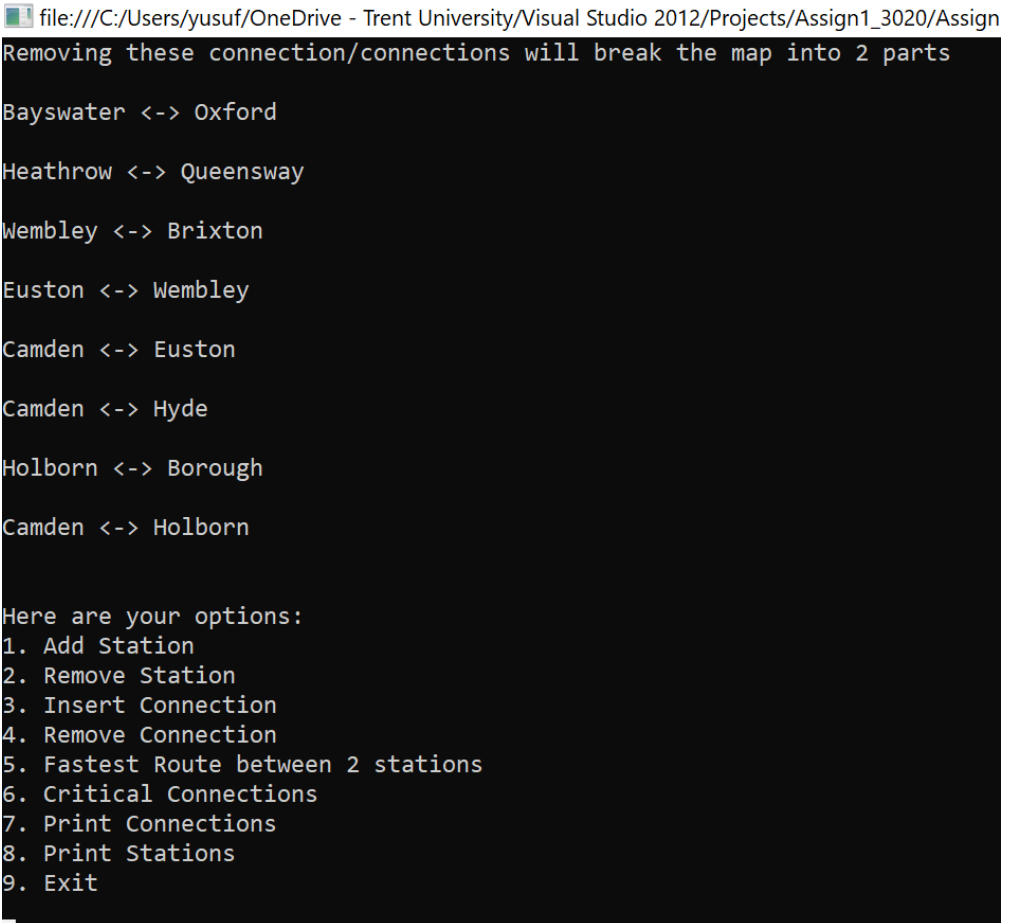
Test 16	
<b>Description</b>	Fastest Route
<b>Input</b>	Trying for more cases, now origin is Brixton & Destination is Lambeth
<b>Expected Output</b>	The fastest route. (I added all the possible lines you can take to, if available, from a station to another). Note : There are multiple ways which are both fastest in this example, the program will pick a path that first came across to the destination using BFS.
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3 Enter Origin Brixton Enter Destination Lambeth  Here is your fastest route...  Go from Brixton -&gt; Wembley via these connections: YELLOW  Go from Wembley -&gt; Euston via these connections: YELLOW  Go from Euston -&gt; Camden via these connections: YELLOW  Go from Camden -&gt; Heathrow via these connections: BLUE GREEN RED YELLOW  Go from Heathrow -&gt; Bayswater via these connections: BLUE RED  Go from Bayswater -&gt; Lambeth via these connections: RED  You will have reached Lambeth in the fastest way possible </pre>


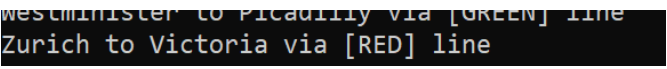
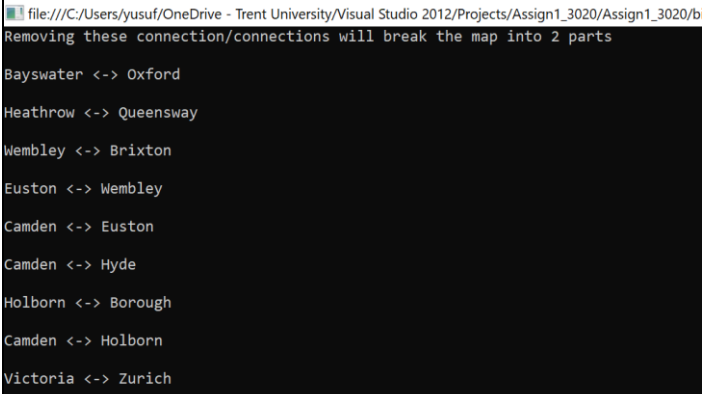


Test 17	
<b>Description</b>	Fastest Route
<b>Input</b>	Trying for more cases, now origin is Oxford & Destination is Hyde
<b>Expected Output</b>	The fastest route. (I added all the possible lines you can take to, if available, from a station to another).
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3020/A: Enter Origin Oxford Enter Destination Hyde  Here is your fastest route...  Go from Oxford -&gt; Bayswater via these connections: BLUE  Go from Bayswater -&gt; Heathrow via these connections: BLUE RED  Go from Heathrow -&gt; Camden via these connections: BLUE GREEN RED YELLOW  Go from Camden -&gt; Hyde via these connections: GREEN  You will have reached Hyde in the fastest way possible </pre>

Test 18	
<b>Description</b>	Fastest Route & Removing Connection
<b>Input</b>	<p>Trying to calculate a fastest route which doesn't exist due to a connection being removed.</p> <p>Let's try removing the connection between Camden and Hyde(Green) for the moment and input a destination to Hyde. (This ties in with Critical Connections which shall be next)</p>
<b>Expected Output</b>	"There is no route you can take to Hyde"
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3020 Enter Station 1 Camden Enter Station 2 Hyde Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you wish to remove 2  GREEN line was removed between Camden and Hyde  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>  <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects, Enter Origin Oxford Enter Destination Hyde There is no route that can take you to Hyde  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

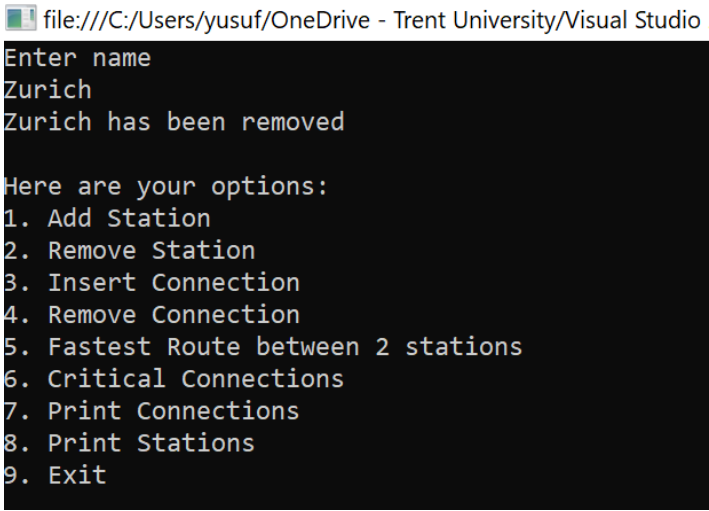
## Critical Connections

Test 19	
<b>Description</b>	Critical Connections. These are connections between stations(edges), if removed, will break the Graph/Map into two 2 parts. Like the previous test case where removing a connection meant that we can no longer visit that station
<b>Input</b>	No input required, just select option 7
<b>Expected Output</b>	All the critical connections in the map.
<b>Actual Output</b>	 <pre>file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3020/Assign Removing these connection/connections will break the map into 2 parts  Bayswater &lt;-&gt; Oxford Heathrow &lt;-&gt; Queensway Wembley &lt;-&gt; Brixton Euston &lt;-&gt; Wembley Camden &lt;-&gt; Euston Camden &lt;-&gt; Hyde Holborn &lt;-&gt; Borough Camden &lt;-&gt; Holborn  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit</pre>

Test 20	
<b>Description</b>	Adding a station and critical connection to test CriticalConnections() again temporarily.
<b>Input</b>	Zurich as the new Station & Victoria and Zurich as the new connection(RED). If this connection is removed, it will break the graph in 2 parts
<b>Expected Output</b>	Zurich and Victoria will show up as a critical a connection.
<b>Actual Output</b>	<div>  <p>(Zurich has been added, I printed the list of stations).</p>  <p>(Zurich and Victoria connection added, done by printing list of connections)</p>  <p>(Zurich and Victoria shows up as a critical connection)</p> </div>

Test 21	
<b>Description</b>	Adding a back-edge(alternative way to get to Zurich besides Victoria) to test CriticalConnection() again.
<b>Input</b>	Adding a connection between Zurich and Bayswater
<b>Expected Output</b>	Zurich and Victoria or Bayswater and Zurich will NOT show up as a Critical Connection because there are alternative paths to get to Zurich and removing them won't break the graph/map.
<b>Actual Output</b>	<pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_ Enter Station 1 : Bayswater Enter Station 2: Zurich Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you want 1  BLUE line was added between Bayswater and Zurich  Zurich to Bayswater via [BLUE] line (printed the connection)  file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_3020/Assign1_ Removing these connection/connections will break the map into 2 parts  Bayswater &lt;-&gt; Oxford Heathrow &lt;-&gt; Queensway Wembley &lt;-&gt; Brixton Euston &lt;-&gt; Wembley Camden &lt;-&gt; Euston Camden &lt;-&gt; Hyde Holborn &lt;-&gt; Borough Camden &lt;-&gt; Holborn </pre> <p>(Zurich doesn't show up as a Critical Connection as expected).</p>

## Remove Station

Test 22	
<b>Description</b>	Testing RemoveStation() by removing Zurich from the previous test case
<b>Input</b>	2, to remove Connection and then specifying Colour.
<b>Expected Output</b>	Zurich will no longer appear when printing the stations as well as when printing the all the connections.
<b>Actual Output</b>	 <pre>file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio Enter name Zurich Zurich has been removed  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit</pre>

file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign

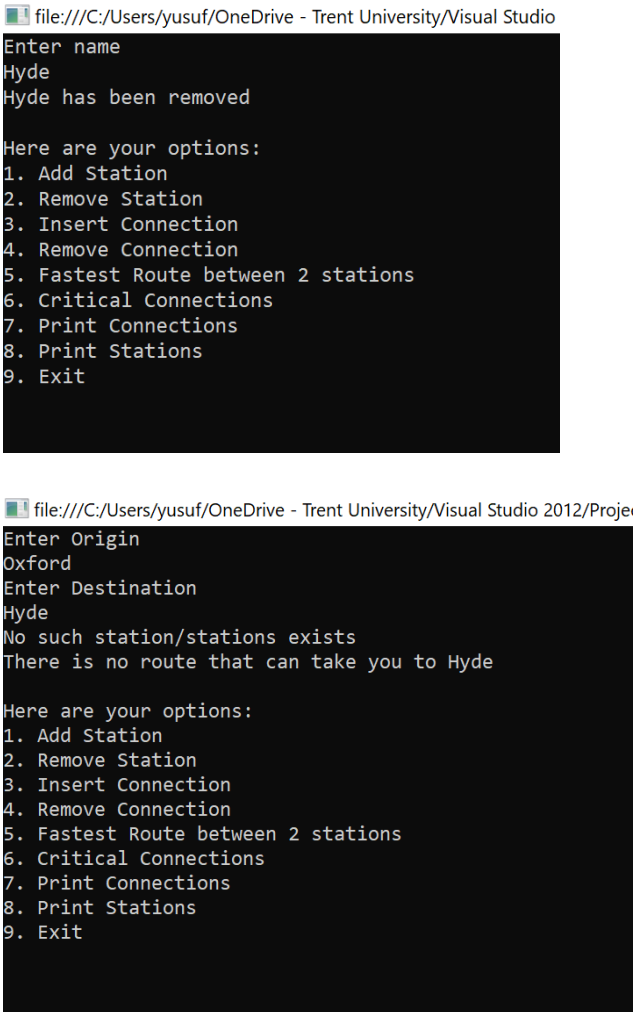
```
Camden to Hyde via [GREEN] line
Camden to Holborn via [BLUE] line
Camden to Victoria via [RED] line
Camden to Picadilly via [GREEN] line
Victoria to Liverpool via [RED] line
Victoria to Camden via [RED] line
Victoria to Westminster via [RED] line
Lambeth to Liverpool via [RED] line
Lambeth to Bayswater via [RED] line
Oxford to Bayswater via [BLUE] line
Picadilly to Westminster via [GREEN] line
Picadilly to Camden via [GREEN] line
Bayswater to Lambeth via [RED] line
Bayswater to Oxford via [BLUE] line
Bayswater to Heathrow via [BLUE] line
Bayswater to Heathrow via [RED] line
Borough to Holborn via [BLUE] line
Holborn to Camden via [BLUE] line
Holborn to Borough via [BLUE] line
Heathrow to Camden via [BLUE] line
Heathrow to Camden via [GREEN] line
Heathrow to Camden via [RED] line
Heathrow to Camden via [YELLOW] line
Heathrow to Bayswater via [BLUE] line
Heathrow to Bayswater via [RED] line
Heathrow to Queensway via [GREEN] line
Heathrow to Queensway via [YELLOW] line
Hyde to Camden via [GREEN] line
Euston to Camden via [YELLOW] line
Euston to Wembley via [YELLOW] line
Queensway to Heathrow via [GREEN] line
Queensway to Heathrow via [YELLOW] line
Wembley to Euston via [YELLOW] line
Wembley to Brixton via [YELLOW] line
Brixton to Wembley via [YELLOW] line
Westminster to Victoria via [RED] line
Westminster to Picadilly via [GREEN] line
```

(All connection TO and FROM Zurich shall be removed)

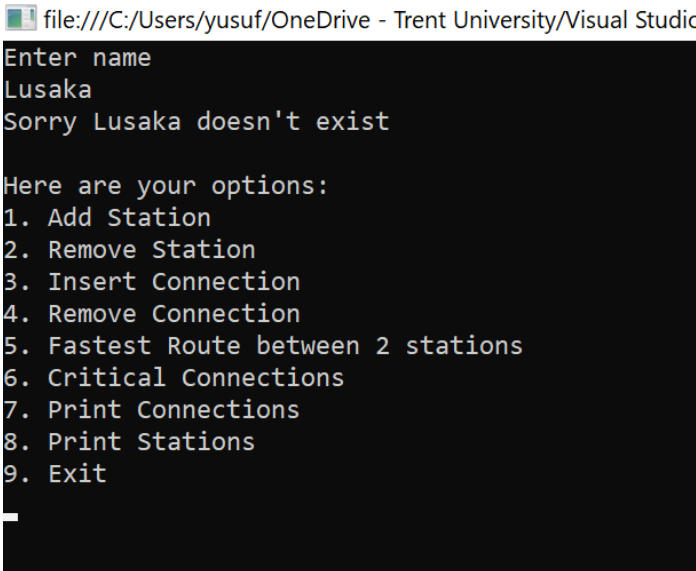
file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign

```
Liverpool
Camden
Victoria
Lambeth
Oxford
Picadilly
Bayswater
Borough
Holborn
Heathrow
Hyde
Euston
Queensway
Wembley
Brixton
Westminster
```

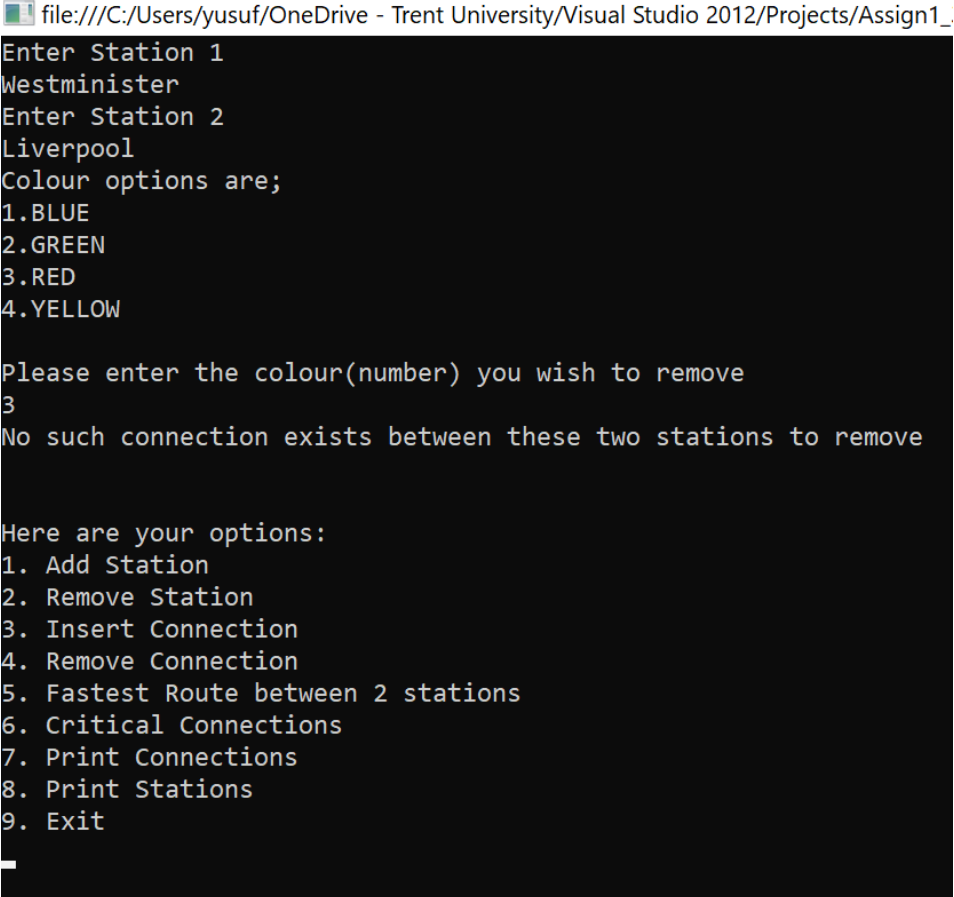
(No Zurich when printing the listing of stations)

Test 23	
<b>Description</b>	Testing Fastest Route by removing a station temporarily. After removing a station, there should be no route to that station
<b>Input</b>	2, to remove a station, 5 for fastest route between Oxford and Hyde
<b>Expected Output</b>	No route to Hyde
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio Enter name Hyde Hyde has been removed  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit  file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Proje Enter Origin Oxford Enter Destination Hyde No such station/stations exists There is no route that can take you to Hyde  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>



Test 24	
<b>Description</b>	Trying to remove a station which doesn't exist.
<b>Input</b>	2, to remove a station and 'Lusaka' for station to be removed
<b>Expected Output</b>	'Sorry Lusaka doesn't exist'.
<b>Actual Output</b>	 <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studic Enter name Lusaka Sorry Lusaka doesn't exist  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>

## Remove Connection

Test 25	
<b>Description</b>	Trying to remove a connection which doesn't exist.
<b>Input</b>	4, to remove a connection and then Westminster and Liverpool (In the map and in the system, this connection doesn't exist).
<b>Expected Output</b>	No such connection exists between these two stations to remove.
<b>Actual Output</b>	 <pre>file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_... Enter Station 1 Westminster Enter Station 2 Liverpool Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you wish to remove 3 No such connection exists between these two stations to remove  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit</pre>

Test 26	
<b>Description</b>	Trying to remove a connection which does exist between two stations but not one with the Colour specified.
<b>Input</b>	4, to remove a connection, and then Heathrow and Queensway as stations. (Only yellow and green line exists between them). So we input Red line to be removed.
<b>Expected Output</b>	No such connection exists between these two stations to remove.
<b>Actual Output</b>	<p>Heathrow to Queensway via [GREEN] line  Heathrow to Queensway via [YELLOW] line  (To show Green &amp; Yellow Line exists between them)</p> <p>(Trying to remove a Red Line)</p> <pre> file:///C:/Users/yusuf/OneDrive - Trent University/Visual Studio 2012/Projects/Assign1_ Enter Station 1 Heathrow Enter Station 2 Queensway Colour options are; 1.BLUE 2.GREEN 3.RED 4.YELLOW  Please enter the colour(number) you wish to remove 3 No such connection exists between these two stations to remove  Here are your options: 1. Add Station 2. Remove Station 3. Insert Connection 4. Remove Connection 5. Fastest Route between 2 stations 6. Critical Connections 7. Print Connections 8. Print Stations 9. Exit </pre>