

CS 253 Mark Holliday (written by Dr. Andrew Scott)

Project 1: **notional.json** Project 1 Output

The following output is for **notional.json**. This assumes that **notional.json** is in the same directory as the client and server JavaScript files.

Section 1: Network tests

In one shell the command below is used.

```
node railway_network.js
```

In another shell the command below is used

```
node client_network.js notional.json
```

The output is below.

```
NETWORK Tests

====Network TEST=1=NETWORK=NAME====
Notional Railway System

====Network TEST=2=GETTING=ROUTES=ARRAY====
There are 3 routes on this network
The type of the routes is object

====Network TEST=3=ROUTE=NAMES====
[ 'Cambledon Line', 'Northern Line', 'Central Line' ]

====Network TEST=4=ROUTE=NAMES=TOSTRING====
Cambledon Line,
Northern Line,
Central Line

====Network TEST=5=Total_Stations====
There are 9 stations in this network.

====Network TEST=6=FIND=LONGEST=ROUTE====
Longest route is: ROUTE:Cambledon Line(Magenta)
STATIONS:
1 Campbell Glen 0 miles
2 Tyson 25 miles
3 Central 50 miles
4 Bieberville 75 miles
```

```
5 Elton 100 miles
Total Route Distance: 100 miles
```

Section 2: Route summary tests

In one shell the command below is used.

```
node railway_routeSummary.js
```

In another shell the command below is used

```
node client_routeSummary.js notional.json
```

The output is below.

ROUTE SUMMARY Tests

```
====Route Summary TEST=1=ROUTE=SUMMARY====
Routes Summary
=====
Cambleton Line      - Campbell Glen    to Elton          - 100 miles
Northern Line       - Tadcaster        to Lackluster   - 60 miles
Central Line        - Campbell Glen    to Chester      - 100 miles

====Route Summary TEST=2=SORT=ROUTE=BY=NAME=(ASC)===
Routes Summary
=====
Cambleton Line      - Campbell Glen    to Elton          - 100 miles
Central Line        - Campbell Glen    to Chester      - 100 miles
Northern Line       - Tadcaster        to Lackluster   - 60 miles

====Route Summary TEST=3=SORT=ROUTE=BY=NAME=(DESC)===
Routes Summary
=====
Northern Line       - Tadcaster        to Lackluster   - 60 miles
Central Line        - Campbell Glen    to Chester      - 100 miles
Cambleton Line      - Campbell Glen    to Elton          - 100 miles

====Route Summary TEST=4=SORT=ROUTE=BY=LENGTH=(ASC)===
Routes Summary
=====
Northern Line       - Tadcaster        to Lackluster   - 60 miles
Cambleton Line      - Campbell Glen    to Elton          - 100 miles
Central Line        - Campbell Glen    to Chester      - 100 miles

====Route Summary TEST=5=SORT=ROUTE=BY=LENGTH=(DESC)===
Routes Summary
```

Central Line	- Campbell Glen	to Chester	- 100 miles
Cambleton Line	- Campbell Glen	to Elton	- 100 miles
Northern Line	- Tadcaster	to Lackluster	- 60 miles

Section 3: Route tests

In one shell the command below is used.

```
node railway_route.js
```

In another shell the command below is used

```
node client_route.js notional.json "Cambleton Line" Elton Bury
```

Cambleton Line is the route used in the first three tests. **Elton** and **Bury** are the two stops for the extra credit test. The extra credit test determines if there is any single route that contains both of those stops. If there is such a route, it returns a string specifying that route and the number of stops and distance traversed getting from the first to the second stop. Note that the route (if any) found in the extra credit test need not be the same route as the route specified as a command line argument.

In this example **Elton** and **Bury** are stops, but they are on different routes. Thus, there is no single route connecting **Elton** and **Bury**. The output is below.

ROUTE Tests

```
====Route TEST=1=GET=ROUTE====
Found: Cambleton Line

====Route TEST=2=ROUTE=TO=STRING====
ROUTE:Cambleton Line(Magenta)
STATIONS:
1 Campbell Glen 0 miles
2 Tyson 25 miles
3 Central 50 miles
4 Bieberville 75 miles
5 Elton 100 miles
Total Route Distance: 100 miles

====Route TEST=3=ROUTE=DISTANCE====
Distance of Line as calculated: 100

====(OPTIONAL) Route TEST=4=BONUS1=FIND=FROM=TO====
No direct route found from Elton to Bury
```