

Project Synopsis

MAT1003 - D Slot

Title: Submarine cable route planner

Group: G7

Group members:

18BCE7147	Vadlapati Hari Praneeth
18BCE7291	Shreekar Reddy V.M.
18BCN7051	Putluri Sai Vishal Reddy
18BCE7335	Penumutchu Avinash
18BCE7339	Vellanki Pramod Sai Kumar

Document written by: Praneeth

Objectives:

To help the networking companies manage the routes in an efficient way to save the operating costs, and send data in a minimal amount of time.

Methodology:

Map data is entered into text files. We use Dijkstra's algorithm to find the route. The algorithm finds the shortest path between the mentioned source and destination which is entered by the user.

Code is uploaded to GitHub repository:

https://github.com/vh-praneeth/Submarine_cable_route

Sample Output:

▼ Running code

```
[ ] !java Test.java
```

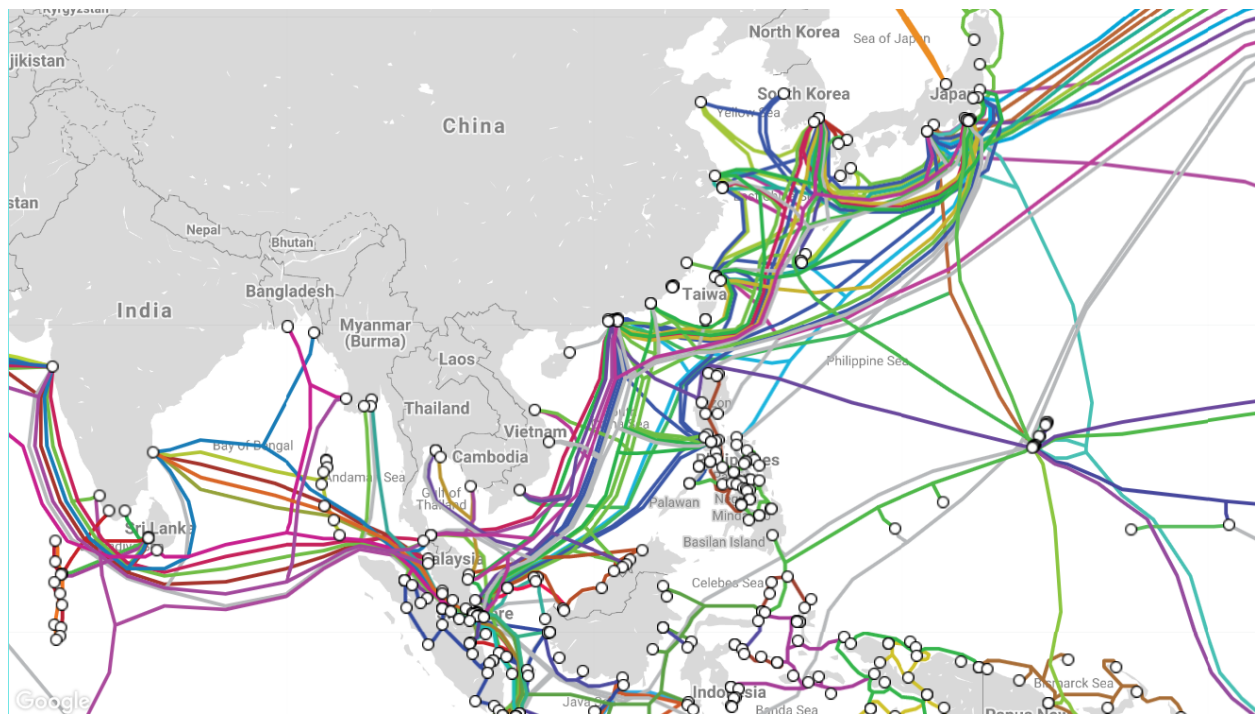
```
Enter source: India_Mumbai
```

```
Enter destination: USA
```

```
Route:
```

```
India_Mumbai -> India_Chennai -> Singapore -> USA
```

Map screenshot:



Other parts from Project Proposal document

Abstract:

We need to send data from our computer to a different server using the internet. It is sent to different countries through Submarine cables which are installed in the sea. The cables route about 99% of global internet traffic. These cables are also called Undersea cables.

There are many possible paths using which we can send data. Each cable has a different capacity and different amount of other traffic which is currently being sent. Cable map is available on the website: <https://www.submarinecablemap.com/>.

Expected Outcome:

Using this project, we write an algorithm that finds the best path to send the data to the destination, with the minimum distance possible.