TEST REPORT

LINK STATE ROUTING PROTOCOL USING SERVLETS & JSP

PROJECT

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COURSE: CS 542 COMPUTER NETWORKS 1 - FUNDAMENTALS

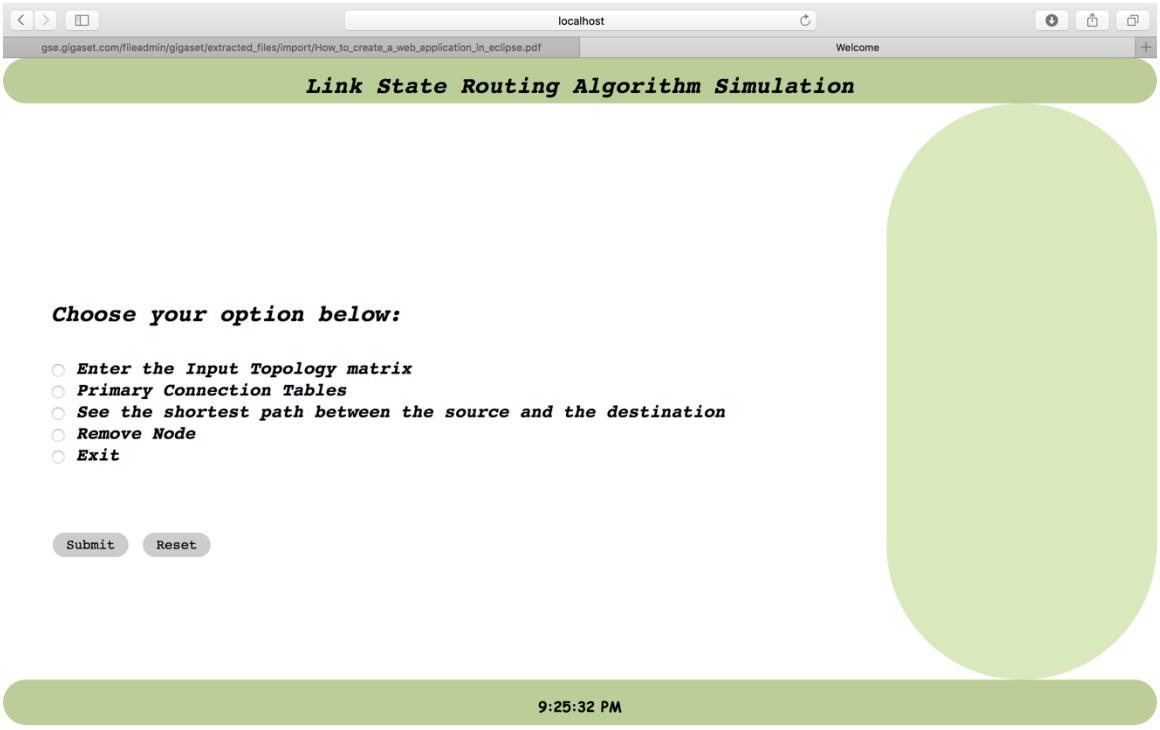
TEST FILE

TEST CASE 1 (POSITIVE SCENARIO):

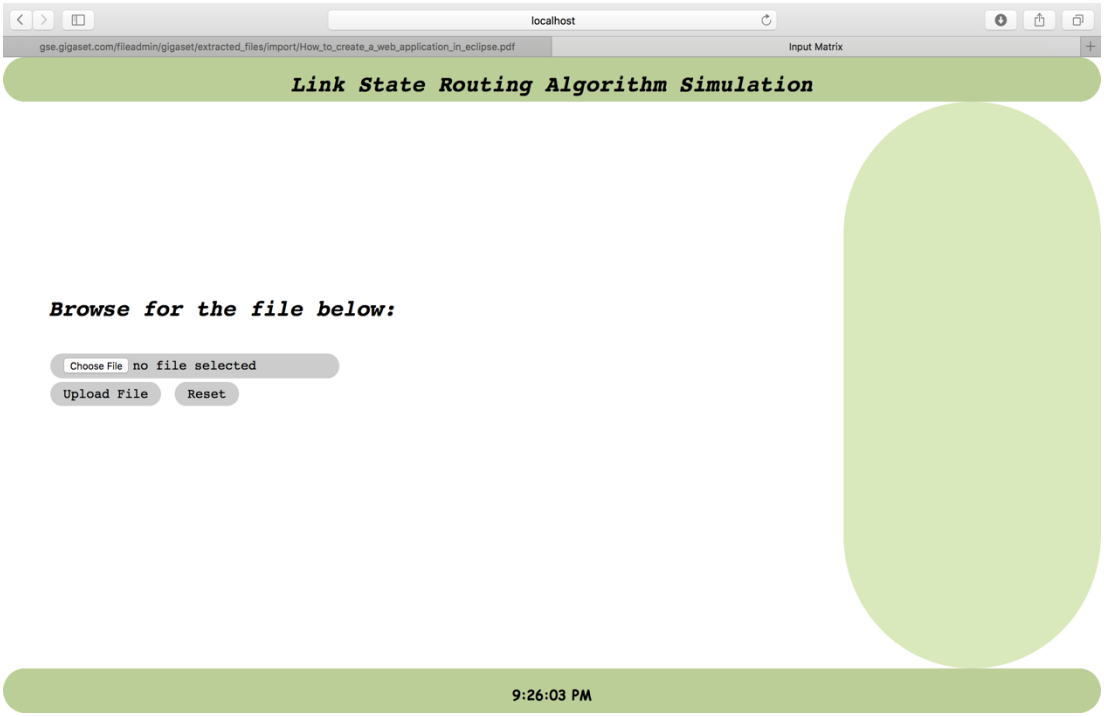
1. Test Matrix – 1

```
0 6 -1 -1 3 -1 -1 -1 -1
6 0 6 -1 3 3 -1 -1 -1
-1 6 0 6 -1 3 3 -1 -1
-1 -1 6 0 -1 -1 3 3 6
3 3 -1 -1 0 -1 -1 -1 -1
-1 3 3 -1 -1 0 -1 -1 -1
-1 -1 3 3 -1 -1 0 -1 -1
-1 -1 -1 3 -1 -1 -1 0 3
-1 -1 -1 6 -1 -1 -1 3 0
```

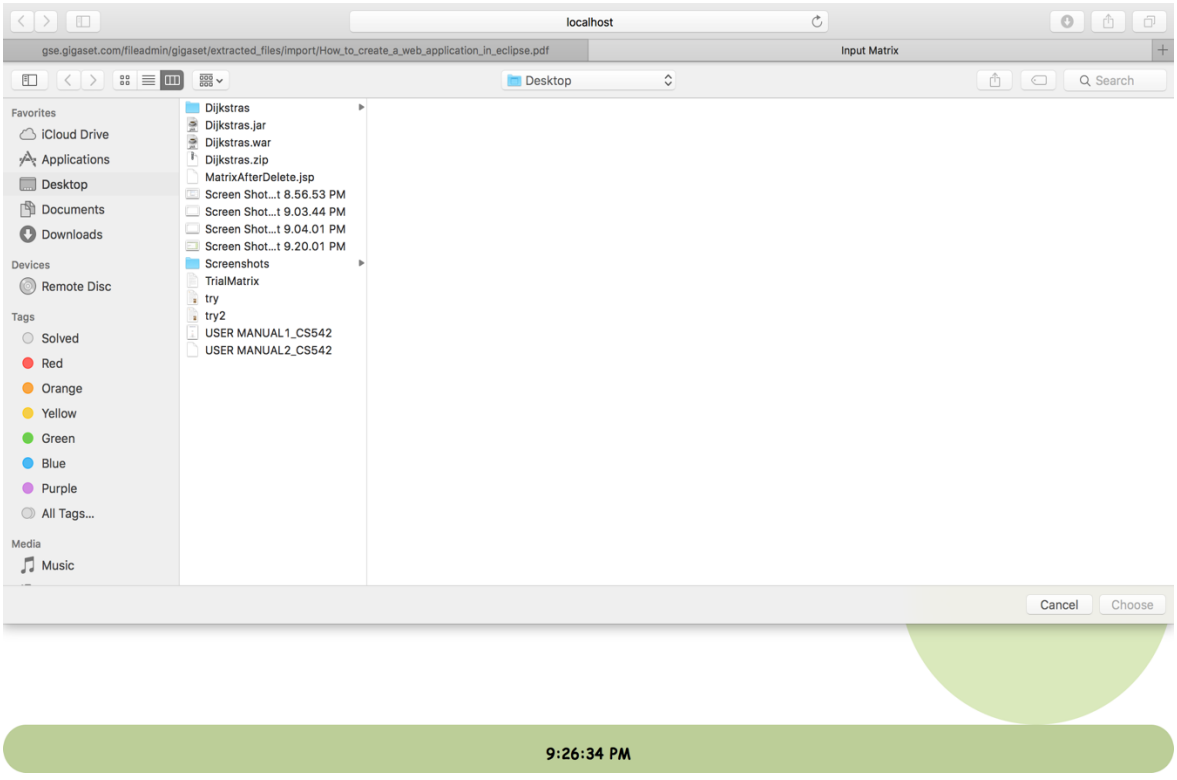
2. Display Homepage



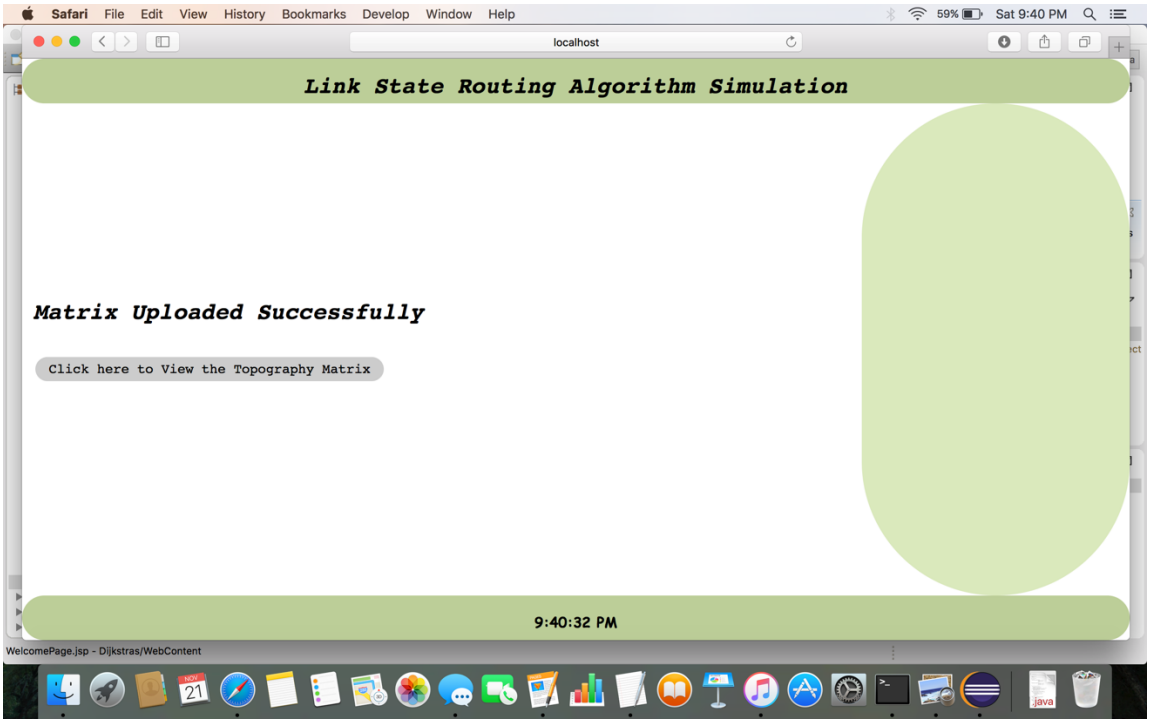
3. Upload matrix file to the page.



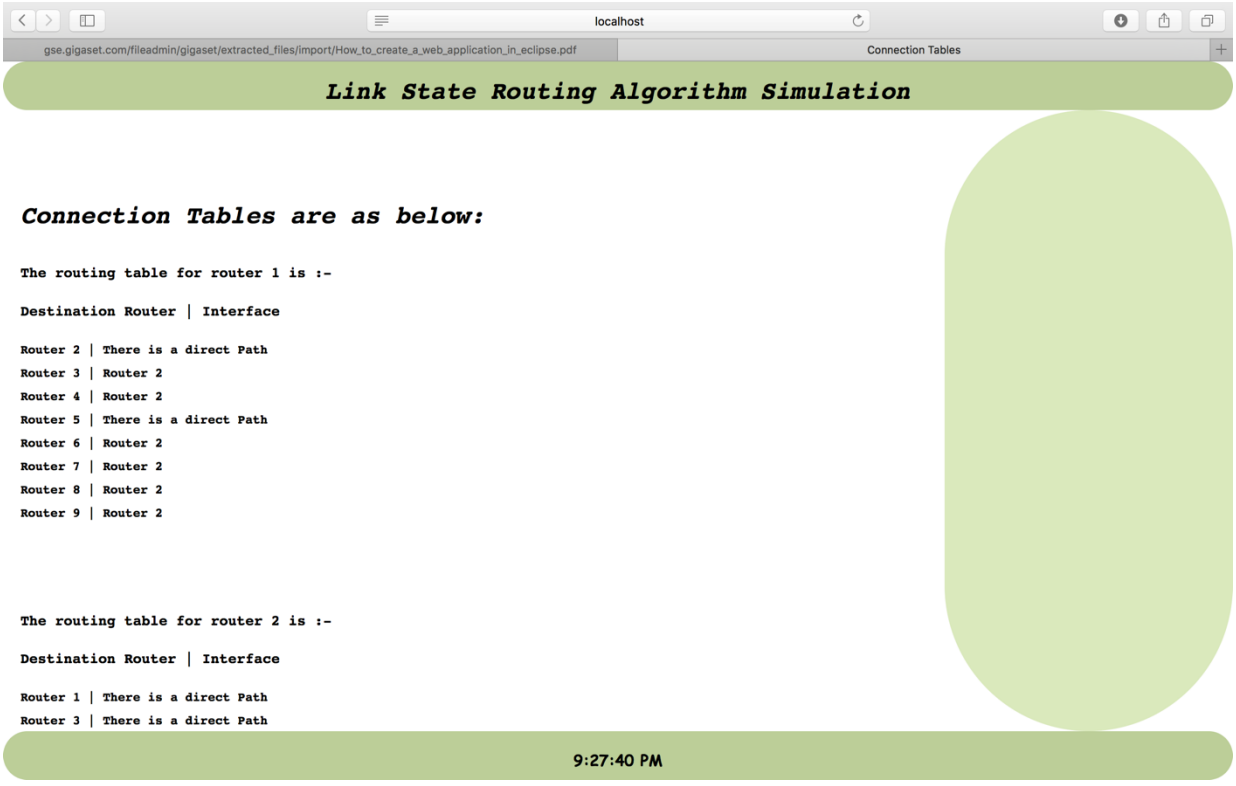
4. Select **Choose File** and Click **Upload File**



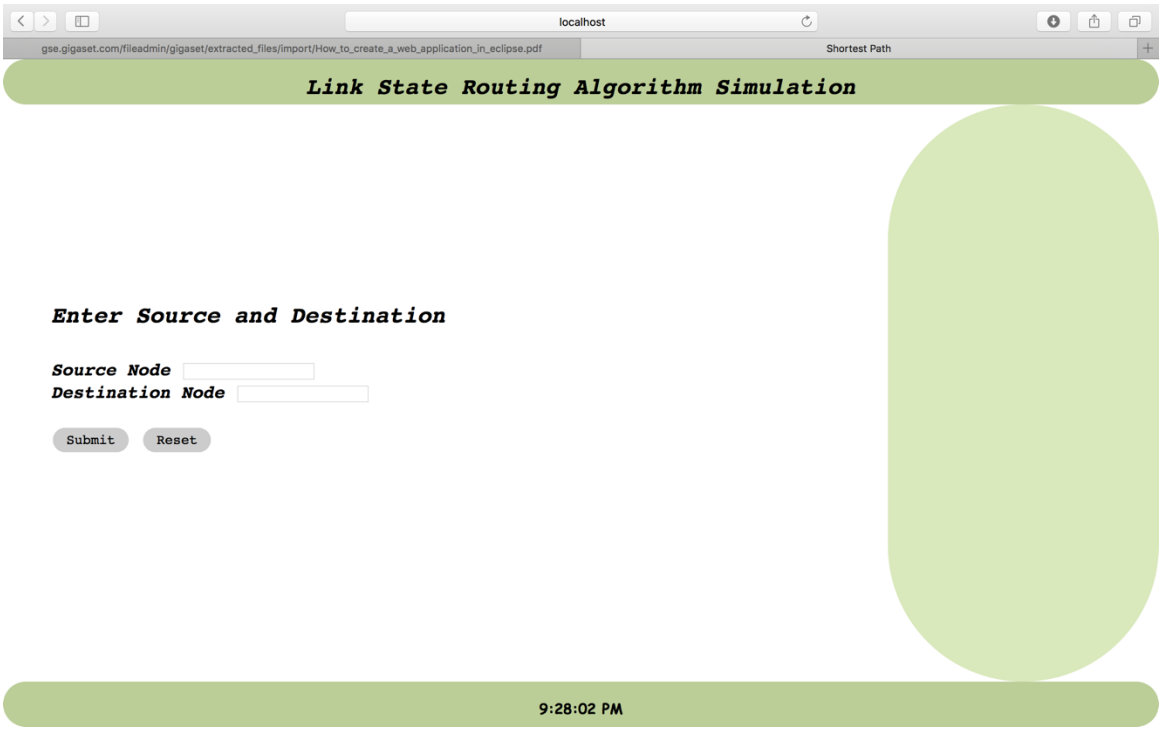
5. Upload Successful!!



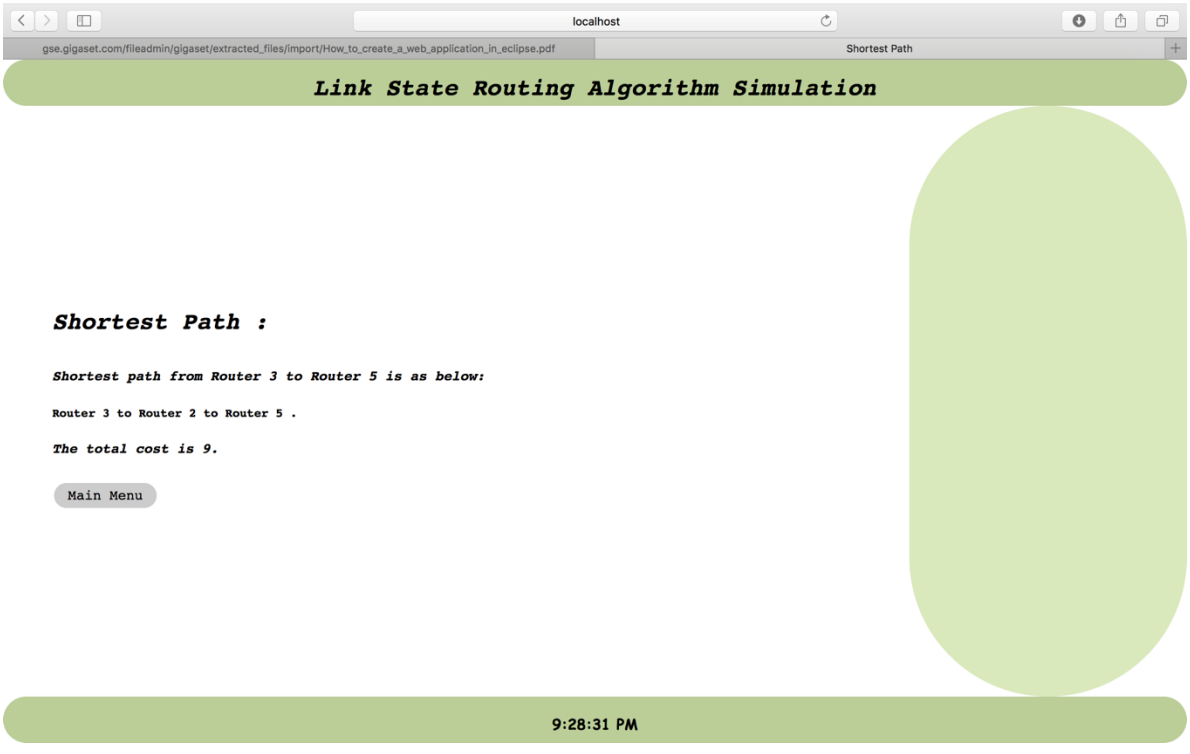
6. Displaying Primary Connection Tables for the given matrix



7. Now from the homepage, select the option for seeing shortest path

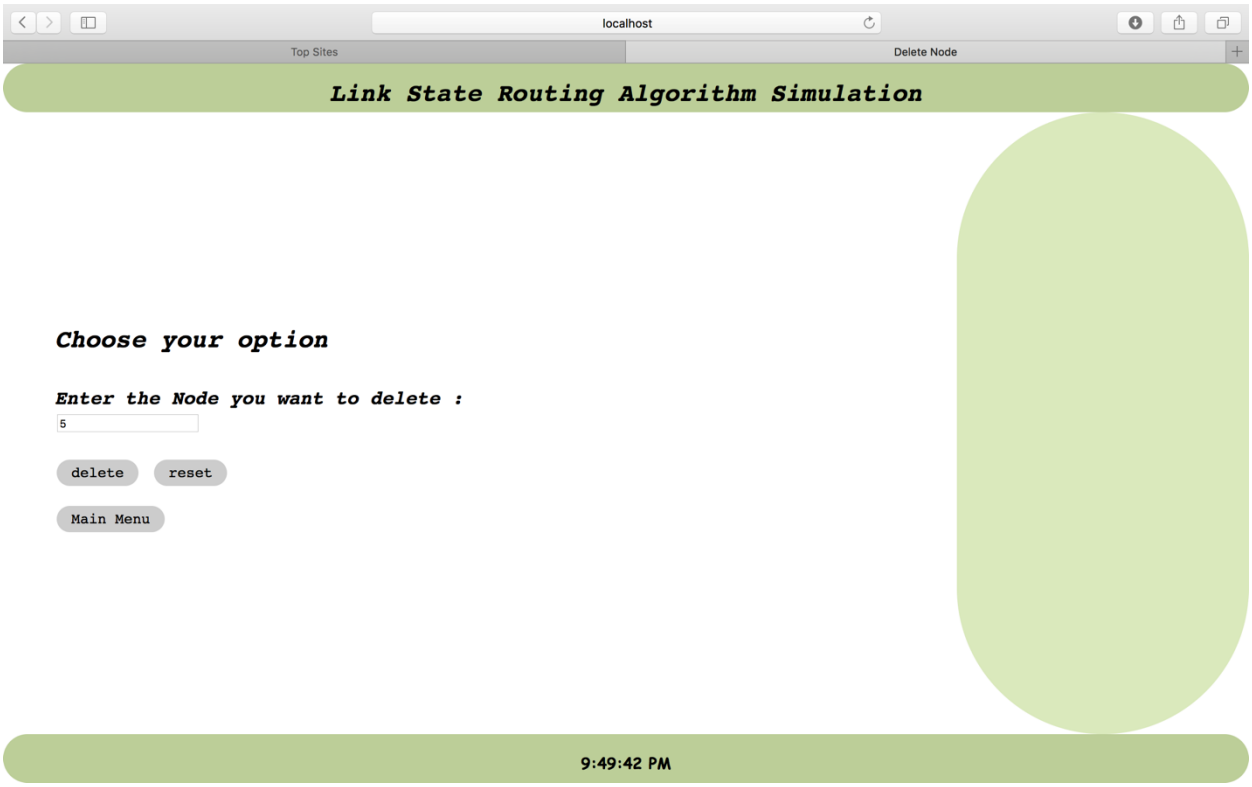


Enter source and destination nodes.

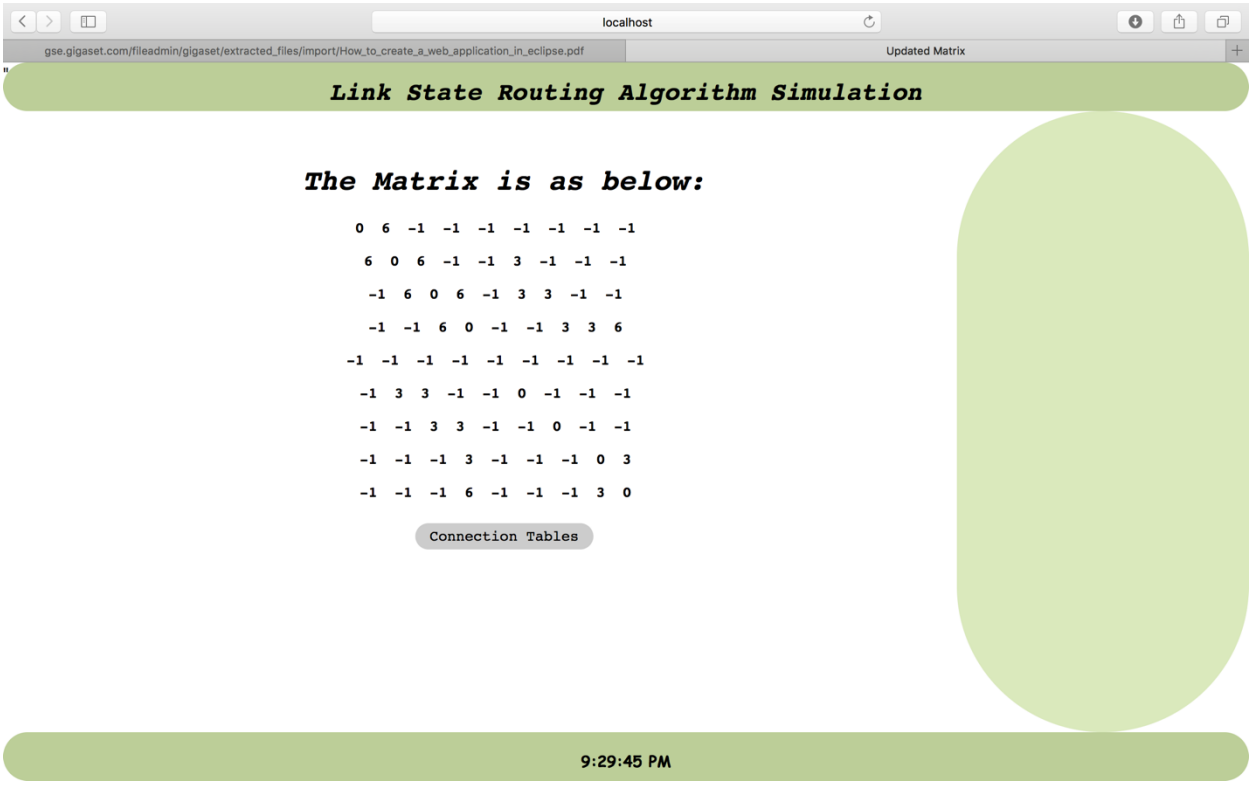


Shortest path displayed.

8. Select Remove Node from the Homepage.

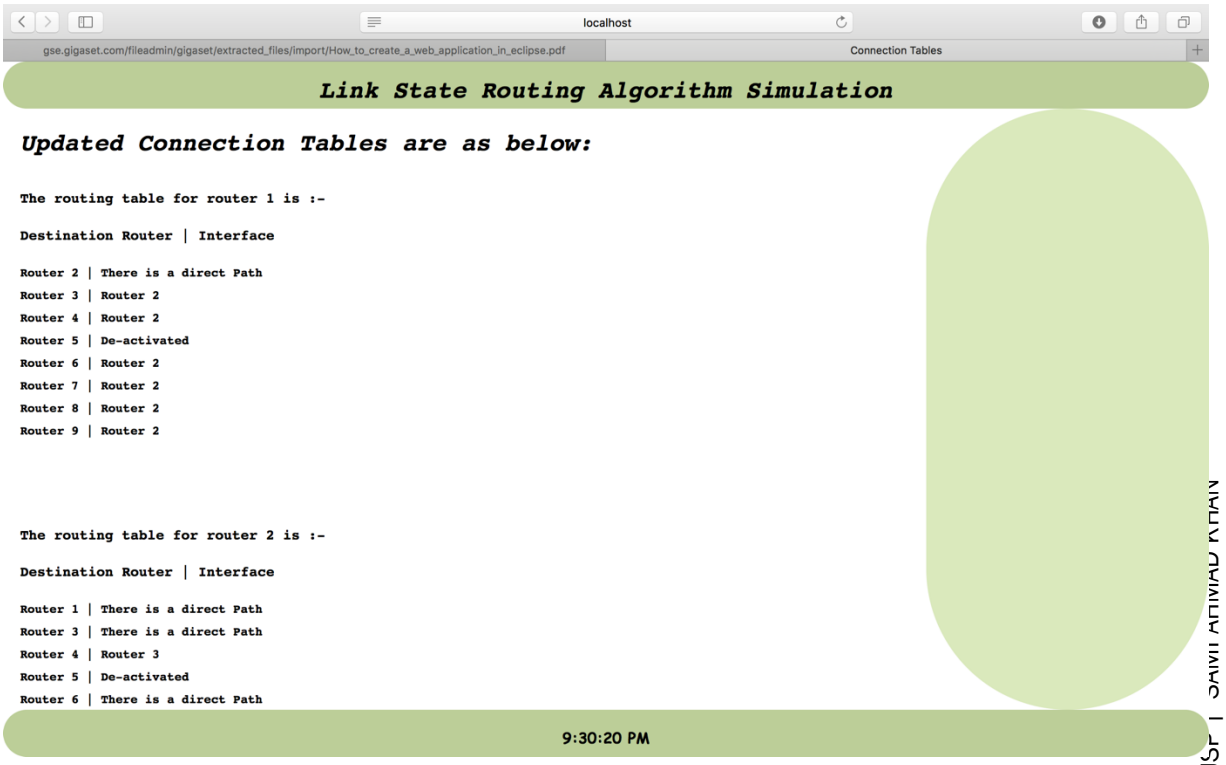


After Deleting



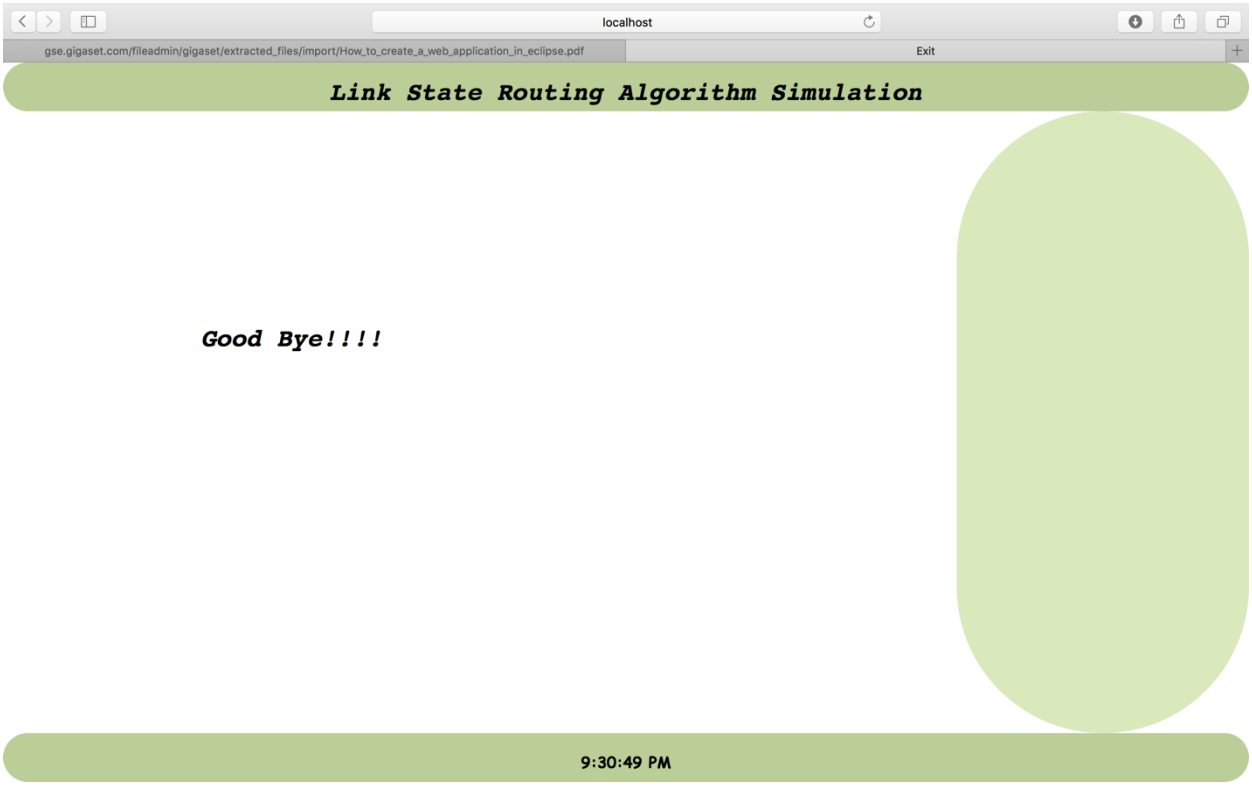
From the above screen shot we can see that the 5th node displays only "**-1**" in both its rows and columns, indicating that it has been removed.

9. After the node is deleted, try viewing the topology again and the following **updated topology** is being displayed.



Router 5 → shows Deactivated.

10. Select Exit from Homepage, and the following will be displayed:

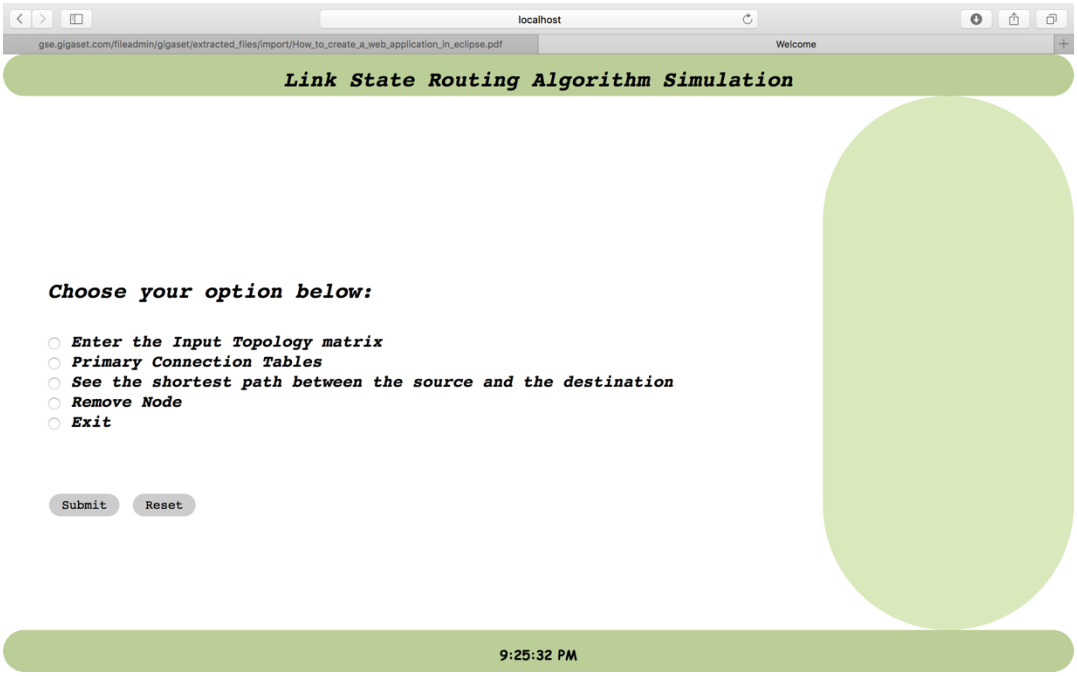


TEST CASE 2 (NEGATIVE SCENARIO):

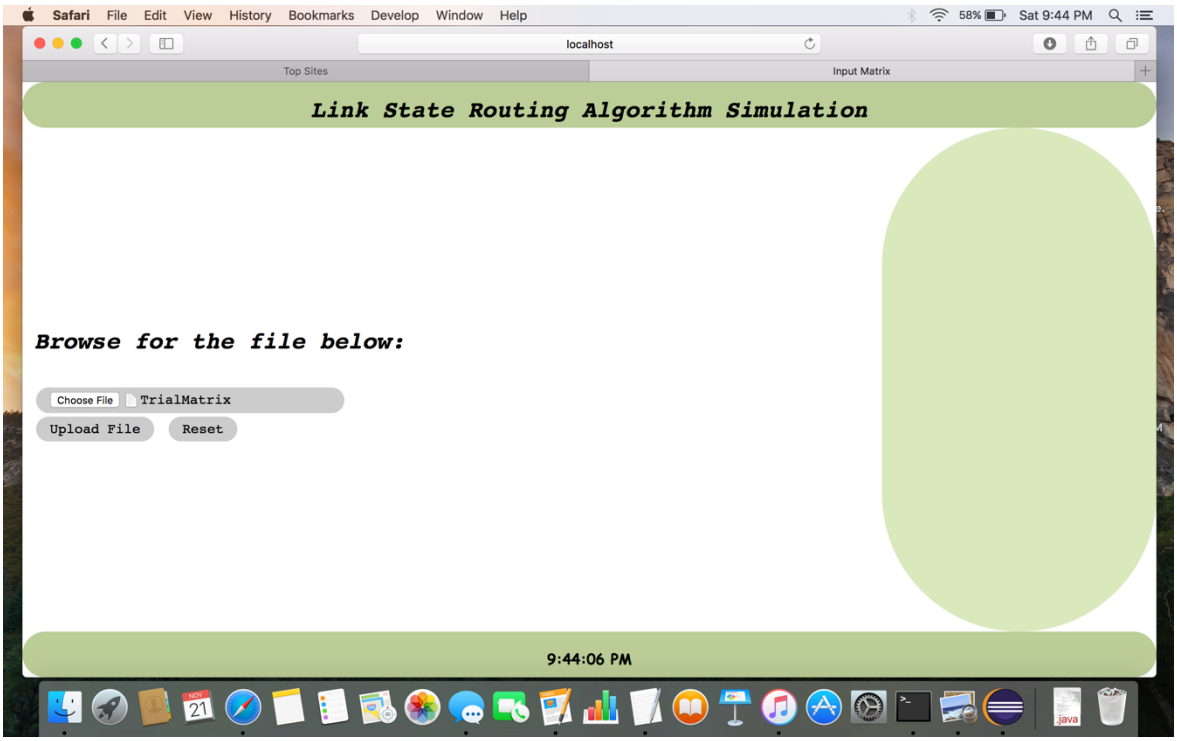
1. Test Matrix – 2

```
0 -1 -1 -1 -1 1 -1 -1 1 5 8 9 6 7 9
2 0 2 -1 -1 -1 -1 -1 -1 -1 5 7 9
-1 2 0 4 -1 -1 -1 -1 -1 -1
-1 -1 4 0 2 -1 -1 -1 4 2
-1 -1 -1 2 0 -1 4 -1 -1 -1
-1 -1 -1 -1 -1 0 2 -1 -1 5
-1 -2 -1 -1 4 2 0 6 -1 -1
-1 -1 -1 -1 -1 -1 6 0 8 -1
1 -1 -1 4 -1 -1 -1 8 0 -1
5 -1 -1 2 -1 5 -1 -1 -1 0
```

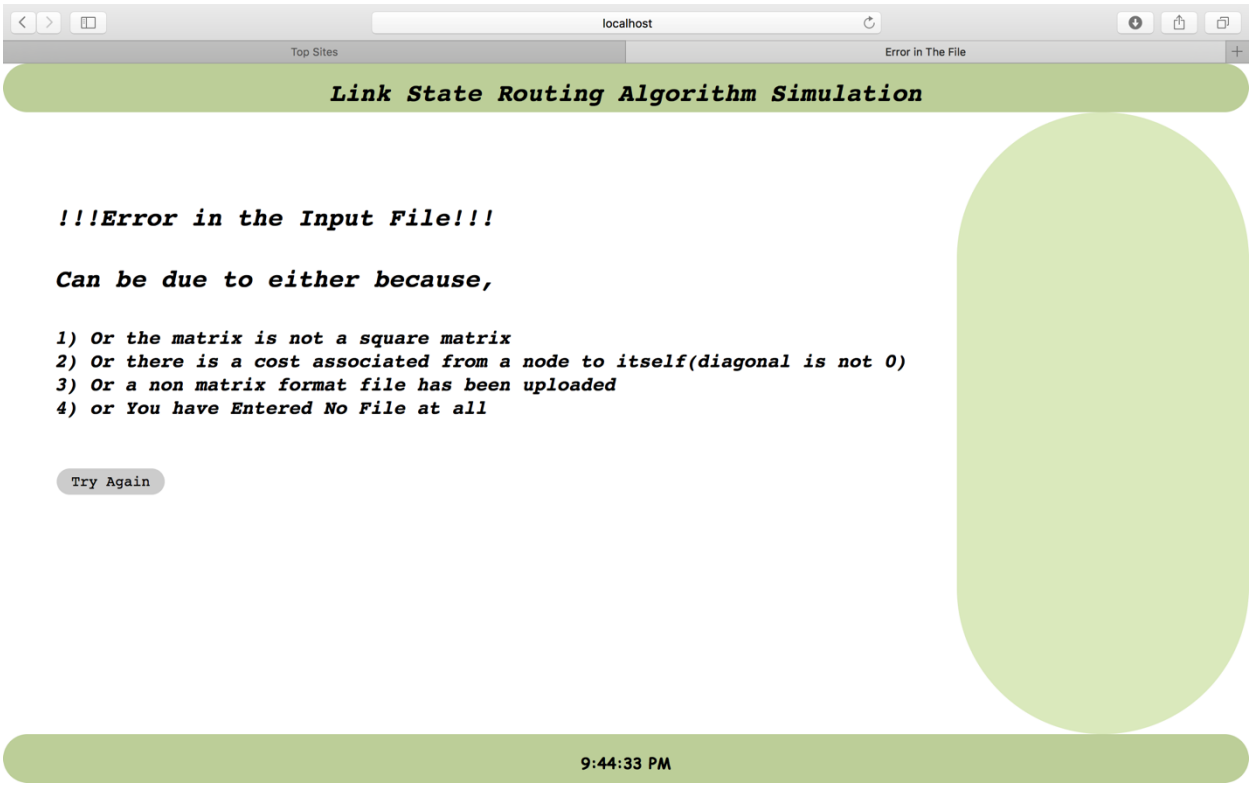
2. Display homepage



3. Upload Matrix to the page.



4. Select **Choose File** and Click **Upload File**



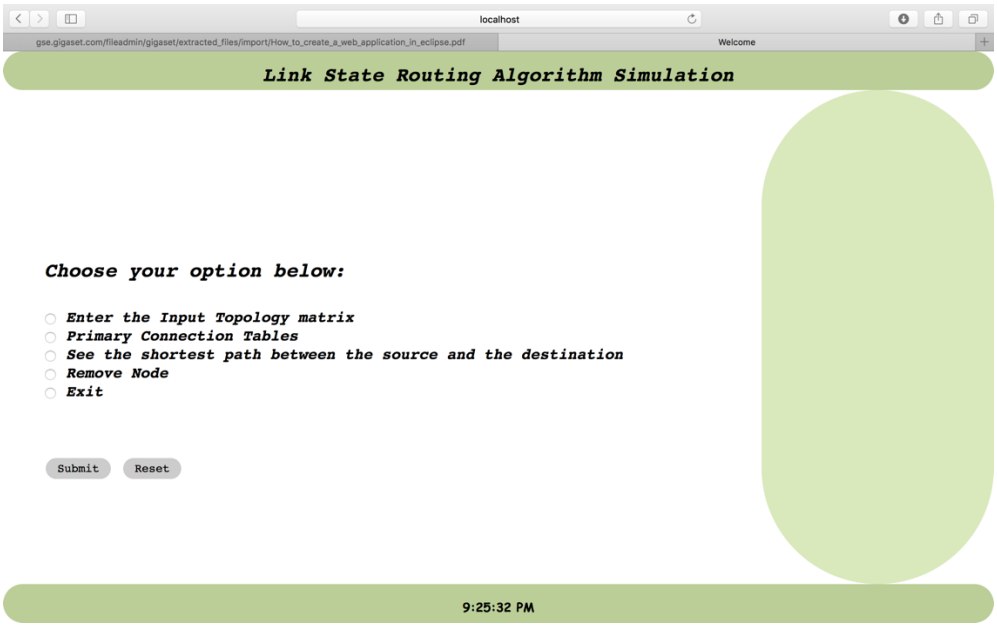
Error Reported because the Entry in the file is not as expected (i.e. Matrix Form).

TEST CASE 3 (NEGATIVE SCENARIO):

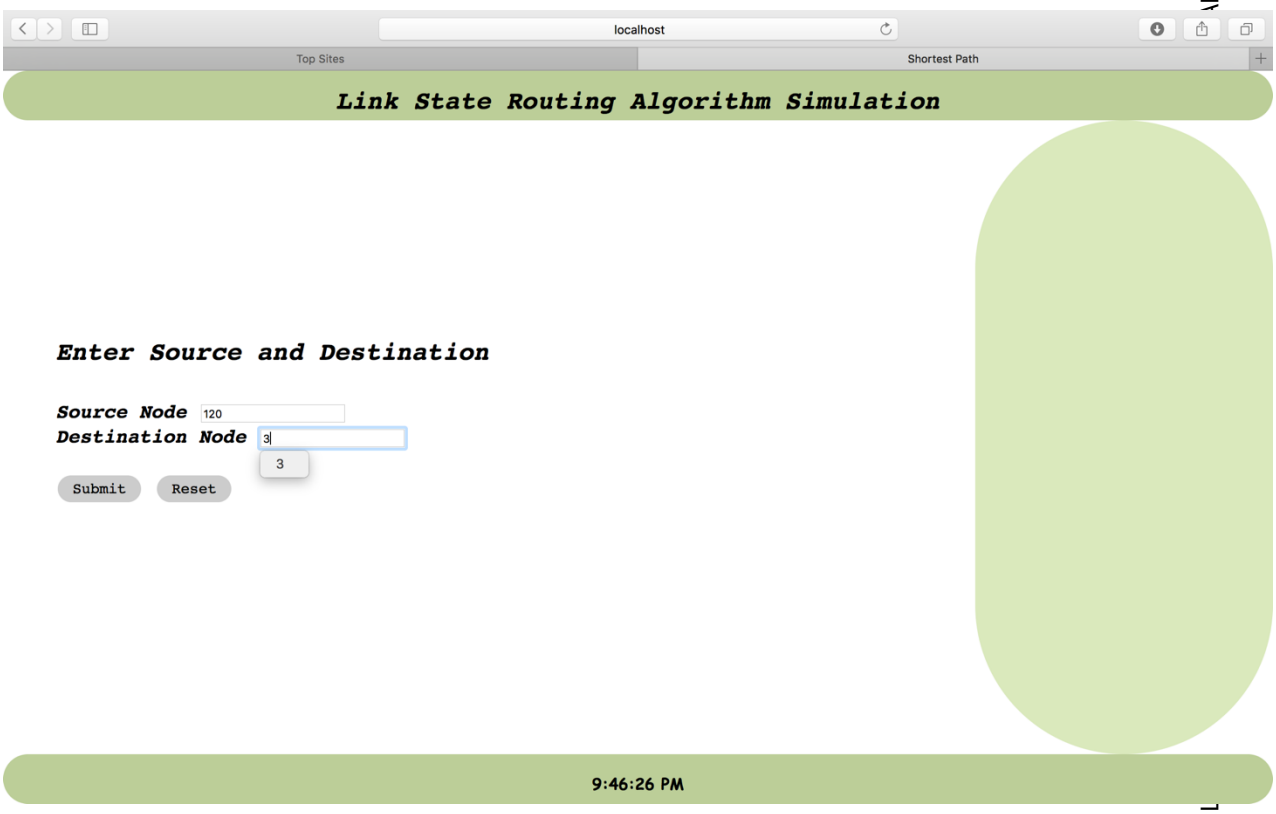
1. Test Matrix – 3

```
0 6 -1 -1 3 -1 -1 -1 -1
6 0 6 -1 3 3 -1 -1 -1
-1 6 0 6 -1 3 3 -1 -1
-1 -1 6 0 -1 -1 3 3 6
3 3 -1 -1 0 -1 -1 -1 -1
-1 3 3 -1 -1 0 -1 -1 -1
-1 -1 3 3 -1 -1 0 -1 -1
-1 -1 -1 3 -1 -1 -1 0 3
-1 -1 -1 6 -1 -1 -1 3 0
```

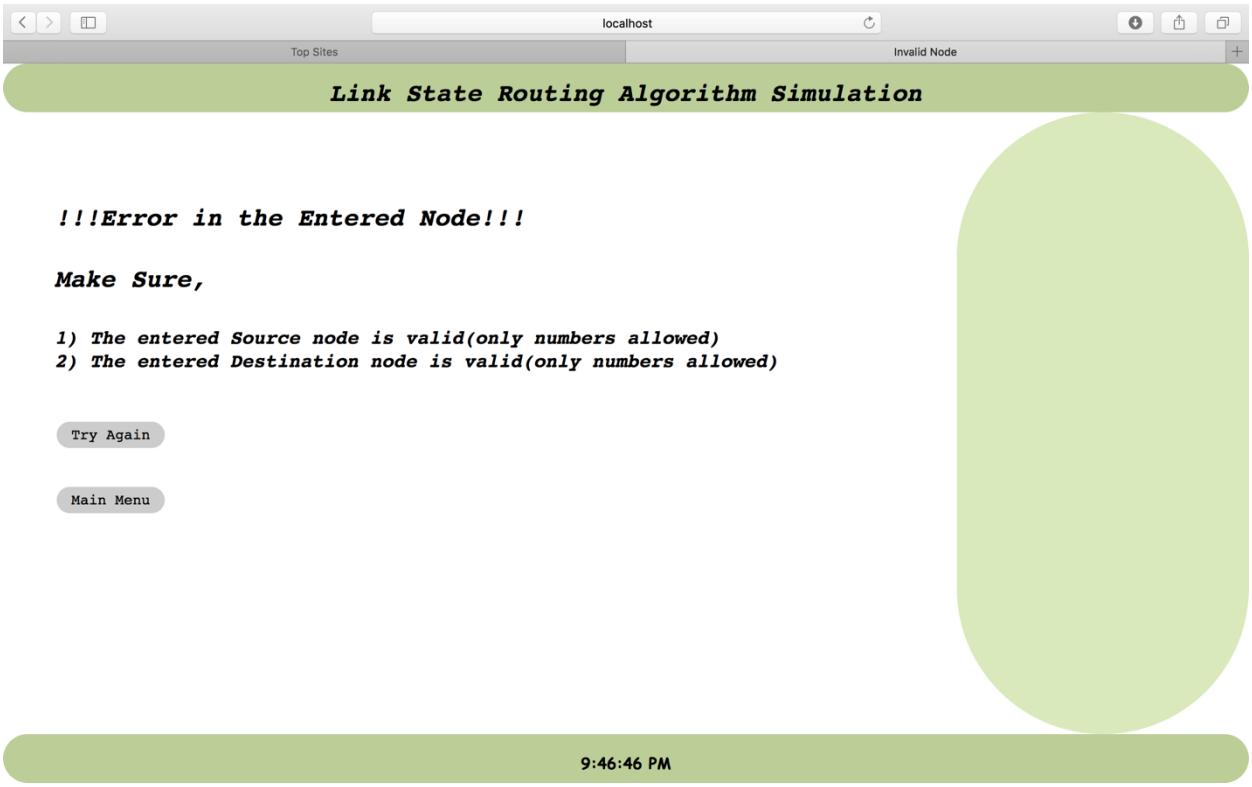
2. Display homepage



3. Upload the Matrix as done in above cases.
4. Select in the homepage to see for the shortest path between a source and destination.
5. And enter Invalid node values.



6. Error will be displayed.

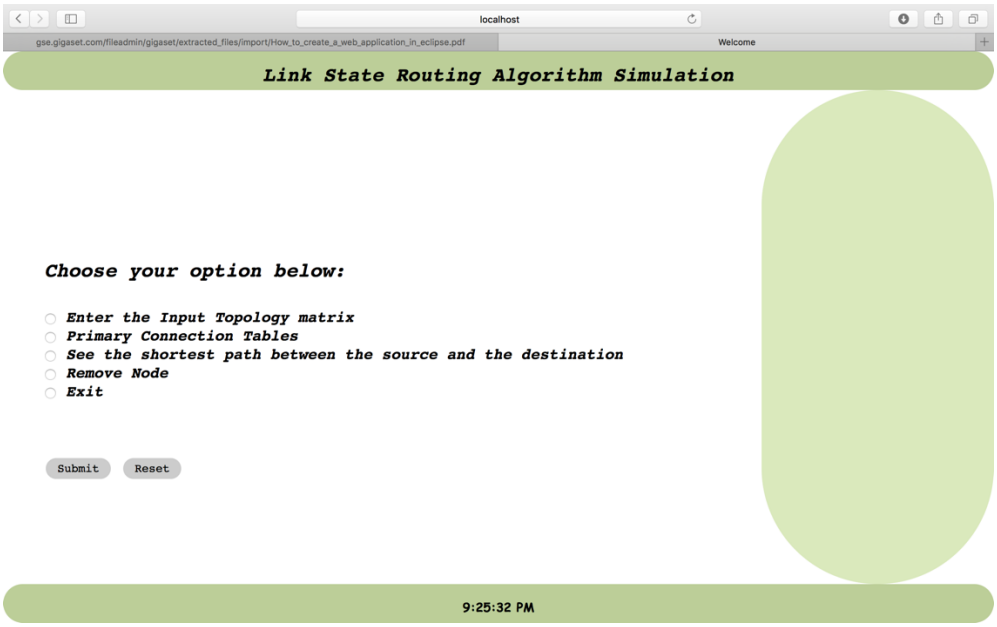


TEST CASE 4 (NEGATIVE SCENARIO):

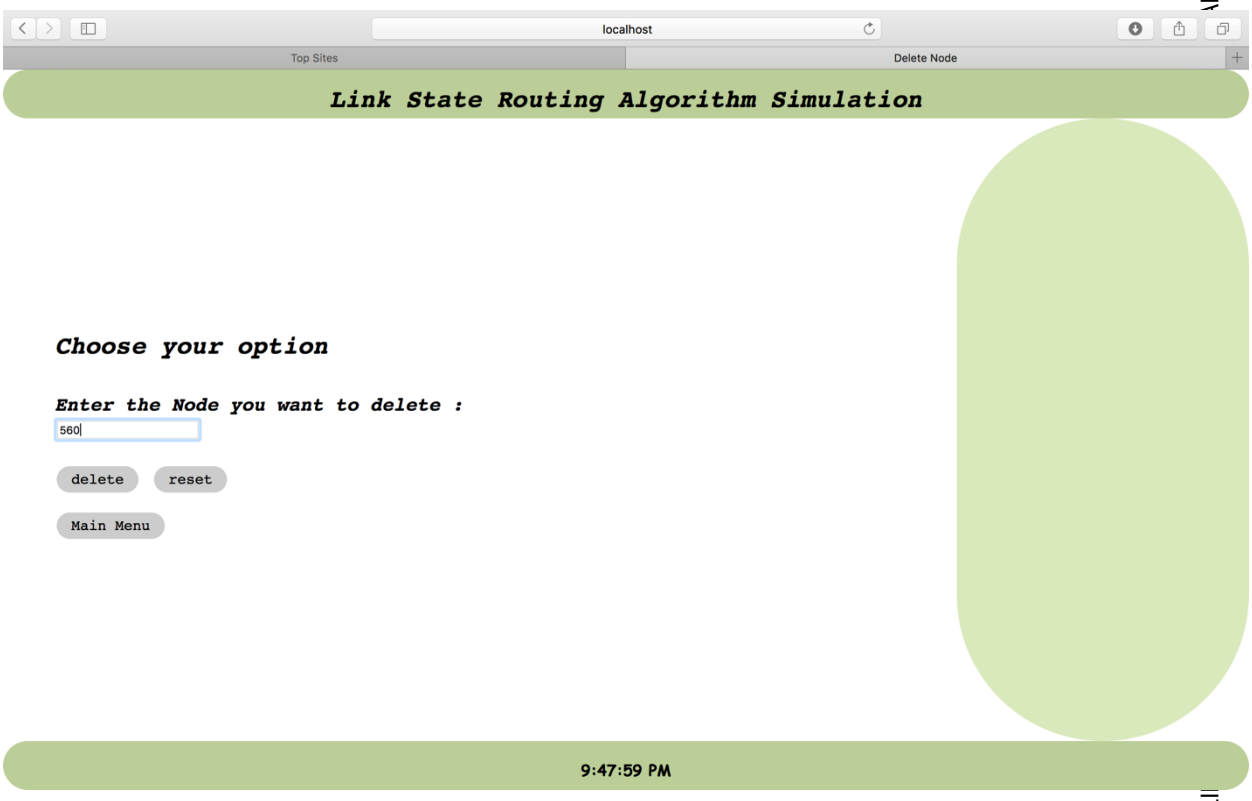
1. Test Matrix – 3

```
0 6 -1 -1 3 -1 -1 -1 -1
6 0 6 -1 3 3 -1 -1 -1
-1 6 0 6 -1 3 3 -1 -1
-1 -1 6 0 -1 -1 3 3 6
3 3 -1 -1 0 -1 -1 -1 -1
-1 3 3 -1 -1 0 -1 -1 -1
-1 -1 3 3 -1 -1 0 -1 -1
-1 -1 -1 3 -1 -1 -1 0 3
-1 -1 -1 6 -1 -1 -1 3 0
```

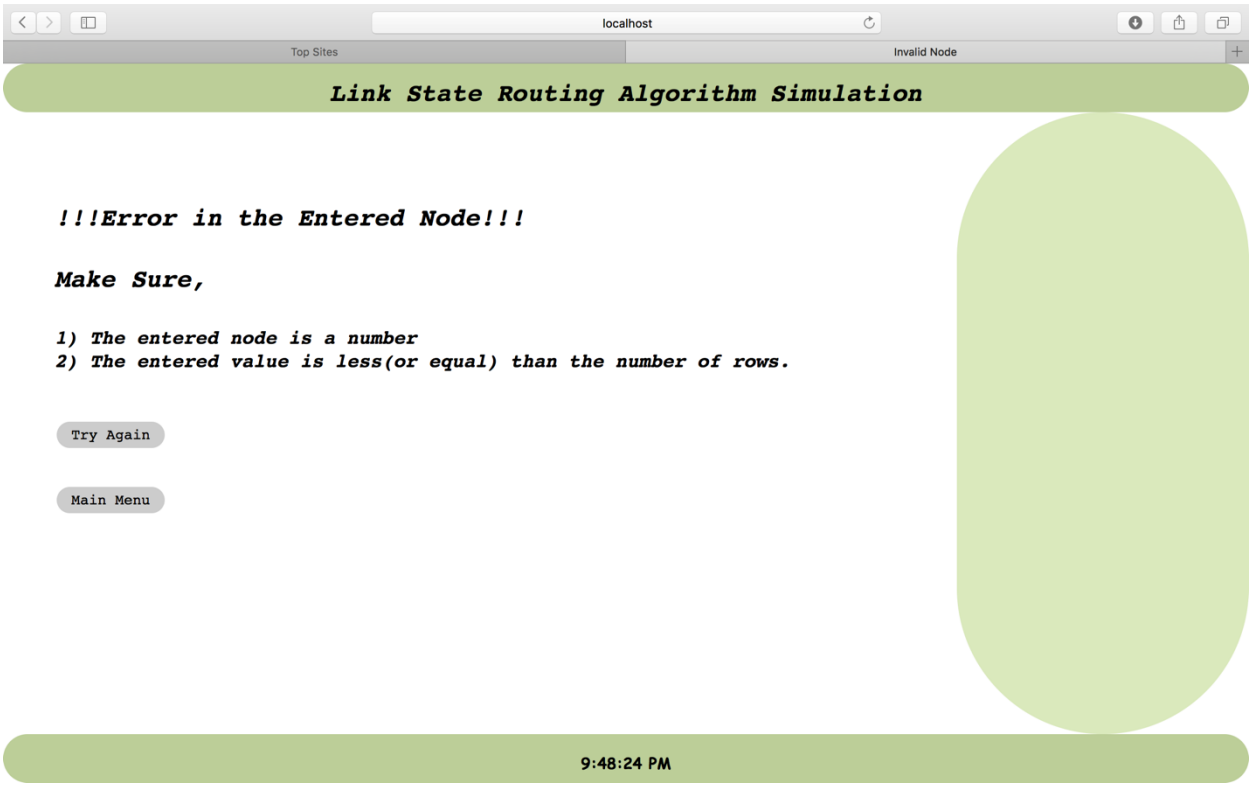
2. Display homepage



3. Upload the Matrix as done in above cases.
4. Select the Remove Node option from the homepage.
5. Enter some Invalid Node value for removing from the network



6. Following **Error** is displayed.

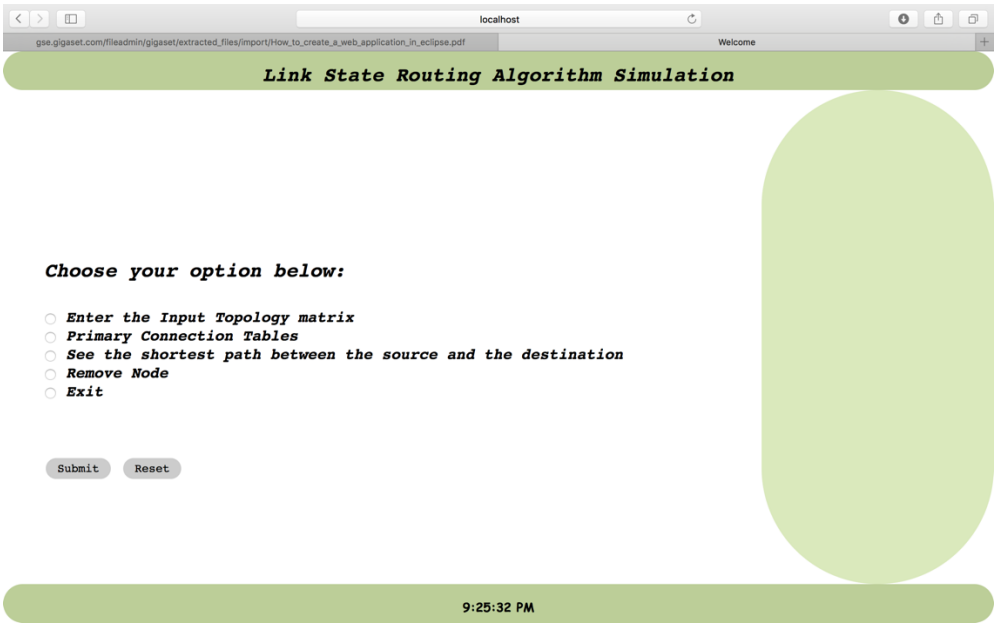


TEST CASE 5 (NEGATIVE SCENARIO):

1. Test Matrix – 3

```
0 6 -1 -1 3 -1 -1 -1 -1
6 0 6 -1 3 3 -1 -1 -1
-1 6 0 6 -1 3 3 -1 -1
-1 -1 6 0 -1 -1 3 3 6
3 3 -1 -1 0 -1 -1 -1 -1
-1 3 3 -1 -1 0 -1 -1 -1
-1 -1 3 3 -1 -1 0 -1 -1
-1 -1 -1 3 -1 -1 -1 0 3
-1 -1 -1 6 -1 -1 -1 3 0
```

2. Display homepage



3. Select **Remove Node** from the homepage before Uploading the File.
4. Following **Error** will be displayed.