

Assignment : 06

Problem definition:

Write a program to implement link state /Distance vector routing protocol to find suitable path for transmission.

Output :

```
C:\Users\MSI_GL65_Leopard> if ($?) { javac App.java } ; if ($?) { java App }
Enter the number of routers : 5
Enter the number of links : 6
Enter the router pair and the cost :
1 4 3
1 3 2
1 2 5
3 2 4
3 5 4
2 5 3
```

Network :

```
    1 2 3 4 5
```

```
1  0 5 2 3 -
```

```
2  5 0 4 - 3
```

```
3  2 4 0 - 4
```

```
4  3 - - 0 -
```

```
5  - 3 4 - 0
```

```
-----
```

```
1 -> 3 : 2 -
```

```
1 -> 4 : 3 -
```

```
1 -> 5 : 6 3
```

```
-----
```

Final Routing table for router 2 :

```
2 -> 1 : 5 -
```

```
2 -> 2 : 0 -
```

```
2 -> 3 : 4 -
```

```
2 -> 4 : 8 1
```

```
2 -> 5 : 3 -
```

```
-----
```

Final Routing table for router 3 :

```
3 -> 1 : 2 -
```

```
3 -> 2 : 4 -
```

```
3 -> 3 : 0 -
```

```
3 -> 4 : 5 1
```

```
3 -> 5 : 4 -
```

```
-----
```

Final Routing table for router 4 :

```
4 -> 1 : 3 -
```

```
4 -> 2 : 8 1
```

```
4 -> 3 : 5 1
```

```
4 -> 4 : 0 -
```

```
4 -> 5 : 9 1
```

```
-----
```

Final Routing table for router 5 :

```
5 -> 1 : 6 3
```

```
5 -> 2 : 3 -
```

```
5 -> 3 : 4 -
```

```
5 -> 4 : 9 3
```

```
5 -> 5 : 0 -
```