# Experiment 4: Distance Vector Routing

**Aim:** To generate routing tables for a network of routers using Distance Vector Routing

**Objective:** After carrying out this experiment, students will be able to:

* Generate routing tables for a given network using Distance Vector Routing
* Analyze the reasons why Distance Vector Routing is adaptive in nature

**Problem statement:** You are required to write a program that can generate routing tables for a network of routers. Take the number of nodes and the adjacency matrix as input from user. Your program should use this adjacency matrix and create routing tables for all the nodes in the network. The routing table should consist of one entry per destination. This entry should contain the total cost and the outgoing line to reach that destination.

**Analysis:** While analyzing your program, you are required to address the following points:

* Why is Distance Vector Routing classified as an adaptive routing algorithm?
* Limitations of Distance Vector Routing

**MARKS DISTRIBUTION**

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| --- | --- | --- |
| **Component** | **Maximum Marks** | **Marks Obtained** |
| Preparation of Document | 7 |  |
| Results | 7 |  |
| Viva | 6 |  |
| **Total** | **20** |  |

Submitted by:

Register No:

1. Algorithm/Flowchart
2. Program
3. Results
4. Analysis and Discussions
5. Conclusions
6. Comments
   1. Limitations of the experiment
   2. Limitations of the results obtained
   3. Learning
   4. Recommendations