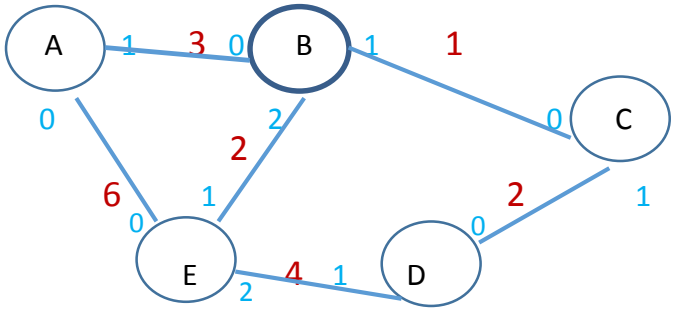
Example: From node A to D



From above diagram

- We defined no. of nodes as 5
- We defined cost matrix as follows:

	a	b	c	d	e
a	0	3	99	99	6
b	3	0	1	99	2
c	99	1	0	2	99
d	99	99	2	0	4
e	6	2	99	4	0

- We defined matrix for interface as follows:

	a	b	c	d	e
a	99	1	99	99	0
b	0	99	1	99	2
c	99	0	99	1	99
d	99	99	0	99	1
e	0	1	99	2	99

Put input (source): **a**

It shows shortest path from a to all nodes

a - a = 0

a – b = 3

a – b – c = 4

a – b – c – d = 6

a – b – e = 5

- Put input (destination): **d**

  It shows routing table for path a -> d

Source	Interface	Next Hope	Cost
A	1	B	3
B	1	C	4
C	1	D	6

- Explanation for routing and forwarding table:
  - First starting node is **a**, so it will check neighbors of node **a.**
  - Neighbors of node **a** are **b** and **e** but cost of **a-b** is less than cost of **a-e** so next node will be **b** and interface for path **a-b** is **1**
  - Now neighbors of node **b** are **a, c, and e.** Cost from **b-c** is less than other path so next node will be **c** and interface for path **b-c** is **1**
  - Again it will check the path from node **c,** shortest path from node **c** is **c-d** and interface for path **c-d** is **1.** At the end node **d** is destination.
- Final path is **a 1 b 1 c 1 d** and total cost is **6**