I am sending all the input and outfiles along with all the respective graph for all the input which i created with Paint which is in img form – Pls check

For First input file
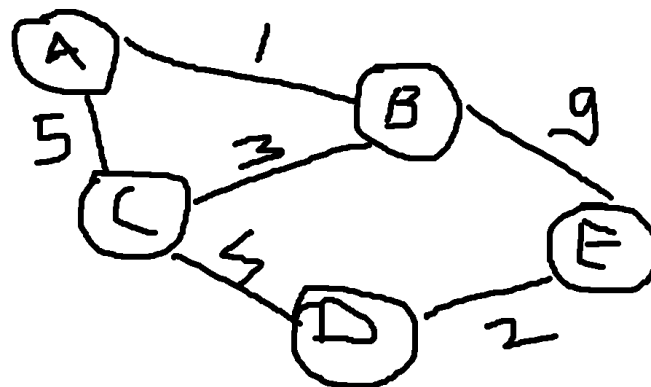python3 BT18CSE044_dvr.py input1.txt > output1.txt

For Second input file
python3 BT18CSE044_dvr.py input2.txt > output2.txt

For Third input file
python3 BT18CSE044_dvr.py input3.txt > output3.txt

Testing of file 1 -

5
A B C D E
A B 1
A C 5
B C 3
C D 4
B E 9
D E 2
EOF

Initialised input:

Routing table of router A:
B -- 1
C -- 5
D -- inf
E -- inf
Routing table of router B:

A -- 1
C -- 3
D -- inf
E -- 9
Routing table of router C:
A -- 5
B -- 3
D -- 4
E -- inf
Routing table of router D:
A -- inf
B -- inf
C -- 4
E -- 2
Routing table of router E:
A -- inf
B -- 9
C -- inf
D -- 2
==
                  Iteration 1
==

Routing table of router A with next hop:
          B -- 1 -- B
   *   C -- 4 -- B
   *   D -- 9 -- C
   *   E -- 10 -- B
Routing table of router B with next hop:
          A -- 1 -- A
          C -- 3 -- C
   *   D -- 7 -- C
          E -- 9 -- E
Routing table of router C with next hop:
   *   A -- 4 -- B
          B -- 3 -- B
          D -- 4 -- D
   *   E -- 6 -- D
Routing table of router D with next hop:
   *   A -- 9 -- C
   *   B -- 7 -- C
          C -- 4 -- C
          E -- 2 -- E
Routing table of router E with next hop:
   *   A -- 10 -- B
          B -- 9 -- B
   *   C -- 6 -- D
          D -- 2 -- D

==
                  Iteration 2

===

Routing table of router A with next hop:
        B -- 1 -- B
        C -- 4 -- B
   *   D -- 8 -- B
        E -- 10 -- B
Routing table of router B with next hop:
        A -- 1 -- A
        C -- 3 -- C
        D -- 7 -- C
        E -- 9 -- E
Routing table of router C with next hop:
        A -- 4 -- B
        B -- 3 -- B
        D -- 4 -- D
        E -- 6 -- D
Routing table of router D with next hop:
   *   A -- 8 -- C
        B -- 7 -- C
        C -- 4 -- C
        E -- 2 -- E
Routing table of router E with next hop:
        A -- 10 -- B
        B -- 9 -- B
        C -- 6 -- D
        D -- 2 -- D

===
        Iteration 3
===

Routing table of router A with next hop:
        B -- 1 -- B
        C -- 4 -- B
        D -- 8 -- B
        E -- 10 -- B
Routing table of router B with next hop:
        A -- 1 -- A
        C -- 3 -- C
        D -- 7 -- C
        E -- 9 -- E
Routing table of router C with next hop:
        A -- 4 -- B
        B -- 3 -- B
        D -- 4 -- D
        E -- 6 -- D
Routing table of router D with next hop:
        A -- 8 -- C
        B -- 7 -- C
        C -- 4 -- C

E -- 2 -- E
Routing table of router E with next hop:
        A -- 10 -- B
        B -- 9 -- B
        C -- 6 -- D
        D -- 2 -- D

===
            Iteration 4
===

Routing table of router A with next hop:
        B -- 1 -- B
        C -- 4 -- B
        D -- 8 -- B
        E -- 10 -- B
Routing table of router B with next hop:
        A -- 1 -- A
        C -- 3 -- C
        D -- 7 -- C
        E -- 9 -- E
Routing table of router C with next hop:
        A -- 4 -- B
        B -- 3 -- B
        D -- 4 -- D
        E -- 6 -- D
Routing table of router D with next hop:
        A -- 8 -- C
        B -- 7 -- C
        C -- 4 -- C
        E -- 2 -- E
Routing table of router E with next hop:
        A -- 10 -- B
        B -- 9 -- B
        C -- 6 -- D
        D -- 2 – D

Testing of file 2
3
A B C
A B 1
A C 5
EOF

Initialised input:

Routing table of router A:
B -- 1
C -- 5
Routing table of router B:
A -- 1
C -- inf
Routing table of router C:
A -- 5
B -- inf
==
          Iteration 1
==

Routing table of router A with next hop:
        B -- 1 -- B
        C -- 5 -- C
Routing table of router B with next hop:
        A -- 1 -- A
   *   C -- 6 -- A
Routing table of router C with next hop:
        A -- 5 -- A
   *   B -- 6 -- A

==
          Iteration 2
==

Routing table of router A with next hop:
        B -- 1 -- B
        C -- 5 -- C
Routing table of router B with next hop:

A -- 1 -- A
        C -- 6 -- A
Routing table of router C with next hop:
        A -- 5 -- A
        B -- 6 -- A

===
            Iteration 3
===

Routing table of router A with next hop:
        B -- 1 -- B
        C -- 5 -- C
Routing table of router B with next hop:
        A -- 1 -- A
        C -- 6 -- A
Routing table of router C with next hop:
        A -- 5 -- A
        B -- 6 -- A

===
            Iteration 4
===

Routing table of router A with next hop:
        B -- 1 -- B
        C -- 5 -- C
Routing table of router B with next hop:
        A -- 1 -- A
        C -- 6 -- A
Routing table of router C with next hop:
        A -- 5 -- A
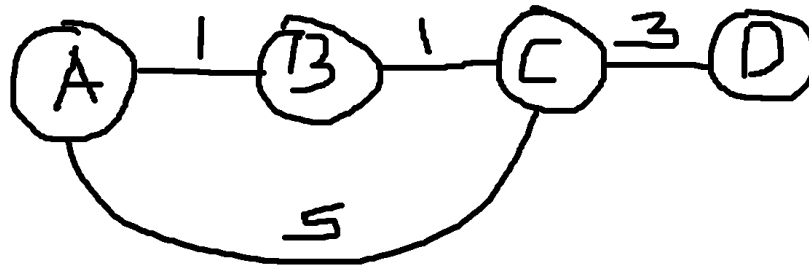   B -- 6 -- A

Testing of file 3

4
A B C D
A B 1
A C 5
B C 1
C D 3
EOF

Initialised input:

Routing table of router A:
B -- 1
C -- 5
D -- inf
Routing table of router B:
A -- 1
C -- 1
D -- inf
Routing table of router C:
A -- 5
B -- 1
D -- 3
Routing table of router D:
A -- inf
B -- inf
C -- 3
===
            Iteration 1
===

Routing table of router A with next hop:
        B -- 1 -- B
 *   C -- 2 -- B
 *   D -- 8 -- C
Routing table of router B with next hop:
        A -- 1 -- A
        C -- 1 -- C
 *   D -- 4 -- C
Routing table of router C with next hop:
 *   A -- 2 -- B

```
        B -- 1 -- B
        D -- 3 -- D
Routing table of router D with next hop:
 *      A -- 8 -- C
 *      B -- 4 -- C
        C -- 3 -- C




===================================================
            Iteration 2
===================================================


Routing table of router A with next hop:
        B -- 1 -- B
        C -- 2 -- B
 *      D -- 5 -- B
Routing table of router B with next hop:
        A -- 1 -- A
        C -- 1 -- C
        D -- 4 -- C
Routing table of router C with next hop:
        A -- 2 -- B
        B -- 1 -- B
        D -- 3 -- D
Routing table of router D with next hop:
 *      A -- 5 -- C
        B -- 4 -- C
        C -- 3 -- C




===================================================
            Iteration 3
===================================================


Routing table of router A with next hop:
        B -- 1 -- B
        C -- 2 -- B
        D -- 5 -- B
Routing table of router B with next hop:
        A -- 1 -- A
        C -- 1 -- C
        D -- 4 -- C
Routing table of router C with next hop:
        A -- 2 -- B
        B -- 1 -- B
        D -- 3 -- D
Routing table of router D with next hop:
        A -- 5 -- C
```

B -- 4 -- C
        C -- 3 -- C

===
            Iteration 4
===

Routing table of router A with next hop:
        B -- 1 -- B
        C -- 2 -- B
        D -- 5 -- B
Routing table of router B with next hop:
        A -- 1 -- A
        C -- 1 -- C
        D -- 4 -- C
Routing table of router C with next hop:
        A -- 2 -- B
        B -- 1 -- B
        D -- 3 -- D
Routing table of router D with next hop:
        A -- 5 -- C
        B -- 4 -- C
        C -- 3 -- C