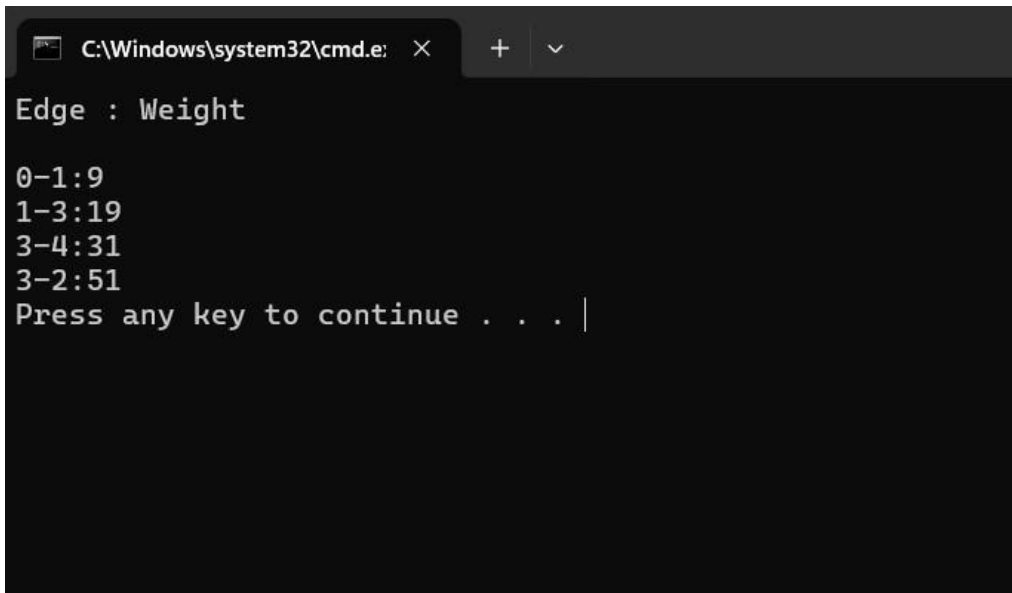97) Boruvka's Algorithm

CODE:

```
INF = 9999999
V = 5
G = [[0, 9, 75, 0, 0],
    [9, 0, 95, 19, 42],
    [75, 95, 0, 51, 66],
    [0, 19, 51, 0, 31],    [0,
42, 66, 31, 0]] selected = [0,
0, 0, 0, 0] no_edge = 0
selected[0] = True
print("Edge : Weight\n")
while (no_edge < V - 1):
    minimum = INF    x = 0    y = 0
    for i in range(V):
        if selected[i]:
            for j in range(V):
                if ((not selected[j]) and G[i][j]):
                    if minimum > G[i][j]:
minimum = G[i][j]
                x = i
                y = j
    print(str(x) + "-" + str(y) + ":" + str(G[x][y]))
selected[y] = True    no_edge += 1 OUTPUT:
```



```
Edge : Weight

0-1:9
1-3:19
3-4:31
3-2:51
Press any key to continue . . .
```

TIME COMPLEXITY : $O(n^2)$