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Assignment 3

```
INF = 9999999
# number of vertices in graph
N = 5
#creating graph by adjacency matrix method
G = [[0, 19, 5, 0, 0],
    [19, 0, 5, 9, 2],
    [5, 5, 0, 1, 6],
    [0, 9, 1, 0, 1],
    [0, 2, 6, 1, 0]]

selected_node = [0, 0, 0, 0, 0]

no_edge = 0

selected_node[0] = True

# printing for edge and weight
print("Edge : Weight\n")
while (no_edge < N - 1):

   minimum = INF
   a = 0
   b = 0
   for m in range(N):
      if selected_node[m]:
```

```
        for n in range(N):
            if ((not selected_node[n]) and G[m][n]):
                # not in selected and there is an edge
                if minimum > G[m][n]:
                    minimum = G[m][n]
                    a = m
                    b = n
    print(str(a) + "-" + str(b) + ":" + str(G[a][b]))
    selected_node[b] = True
    no_edge += 1
```

output: