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# Prim's Algorithm in Python

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]:
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minimum = G[m][n]

a = m

b = n

print(str(a) + "-" + str(b) + ":" + str(G[a][b]))

selected_node[b] = True

no_edge += 1
```