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classmate
Date
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Lab-10

Dijkstra's Algorithm

```
class Graph(object):
    def __init__(self,v)
        self.V=v
        self.g=[[0 for col in range(v)] for i in range(v)]

def min_dist (self, dist, spt_set):
    min=99
    for v in range (self.v):
        if dist[v]<min and not spt_set[v]
            min=dist[v]
            i=v
    return i

def add_edge (self, src, dest, weight):
    self.g[src][dest] = self.g[dest][src]=weight

def dijkstra (self, src):
    dist = [99] * self.v
    dist[src]=0
    spt_set =[False] * self.v
    for i in range(self.v):
    u =self.min_dist (dist, spt_set)
        spt_set[u]=True
        for v in range(self.v):
```

if self.g[u][v]>0 and sptSet[v]==False and
dist[v]>dist[u]+self.g[u][v]
for node in range(self.v)
print(node, "\t", dist[node])