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Lab-03

```
import sys
Class graph()
  def __init__ (self, vertices):
    self.V = vertices
    self.graph = [[ 0 for column in range(vertices)]
                  for row in range (vertices)]
  def printsolution (self, dist):
    print("vertex Distance from source")
    Print ("vertex cost")
      for node in range (self.V):
        Print (node, "'dist[node])

  def mindistance (self, dist, sptset):
    min = sys.maxsize
    for v in range (self.V):
    if (dist[v] < min and sptSet[v] == False):
        min = dist[v]
        min_index = v
      return min_index;

  def dijistra (self, src):
    dist = [sys.maxsize] * self.V
    dist[src] = 0
      sptset = [false] * self.V
    for cout in range (self.V)
      V = SLY.minDistance (dist, SPT.set)
      SPT.set[U] = True
```

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for v in range (self.V):
if self.graph[u][v] > 0 & sptset[v] = false
and dist[v] > dist[v] + sey.graph[u][v]:
dis[v] = dist[v] + self.graph[u][v]
  self.PrintSolution(dist)
Print("Enter No. of vertices:")
  n = int(input())
   g = Graph(n)
  Print("Enter graph:")
   for i in range(n):
      a = []
      a = list(maplineint input(), split(" "))
      g.graph.append(a)
Print("Enter src:")
  src = int(input())
  g.dijkstra(src)
```

Pseudo

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