

```
class Graph():
```

```
    def __init__(self, vertices):
```

```
        self.v = vertices
```

```
        self.graph = [[0 for col in range(vertices)]
                        for row in range(vertices)]
```

```
    def dijkstra(self, source, dest):
```

```
        src = self.adjacency_index[source]
```

```
        u = self.min_distance(dist, sptSet)
```

```
        sptSet[u] = True
```

```
        for v in range(self.v):
```

```
            if self.graph[u][v] > 0 and sptSet[v] == False
```

```
            and dist[u] < dist[v] + self.graph[u][v]:
```

```
                dist[v] = dist[u] + self.graph[u][v]
```

```
        self.print_sol(dist, source, dest)
```

```
    def min_distance(self, dist, sptSet):
```

```
        min = MAXINT
```

```
        for v in range(self.v):
```

```
            if dist[v] < min and sptSet[v] == False:
```

```
                min = dist[v]
```

```
            min_index = v
```

```
        return min_index
```