

BMISCS04 2  
Pranav Arora

## Dijkstra's ALGO

```
void Dijkstra (int graph[V][V], int src)
```

```
{  
    int dist[V]  
    bool sptSet[V];
```

```
    for (int i=0; i<V; i++) {  
        dist[i] = INT_MAX  
        sptSet[i] = false  
    }
```

```
    dist[src] = 0
```

```
    for (int count=0; count<V-1; count++)
```

```
{  
    int u = minDistance (dist, sptSet)
```

```
    sptSet[u] = true
```

```
    for (int v=0; v<V; v++)
```

```
{  
    if (!sptSet[v] && graph[u][v] && dist[u] != INT_MAX
```

```
{
```

```
        dist[v] = dist[u]
```

```
        + graph[u][v];
```

```
}
```

```
}
```

```
}
```

```
int minDistance (int dist[], bool  
                  src, int dest)
```

```
{    int min = INT_MAX, min_i;
```

```
    for (int v = 0; v < V; v++)
```

```
        if (!srcSet[v] && dist[v] <= min)
```

```
            min = dist[v], min_i = v;
```

```
    return min_i;
```

```
}
```