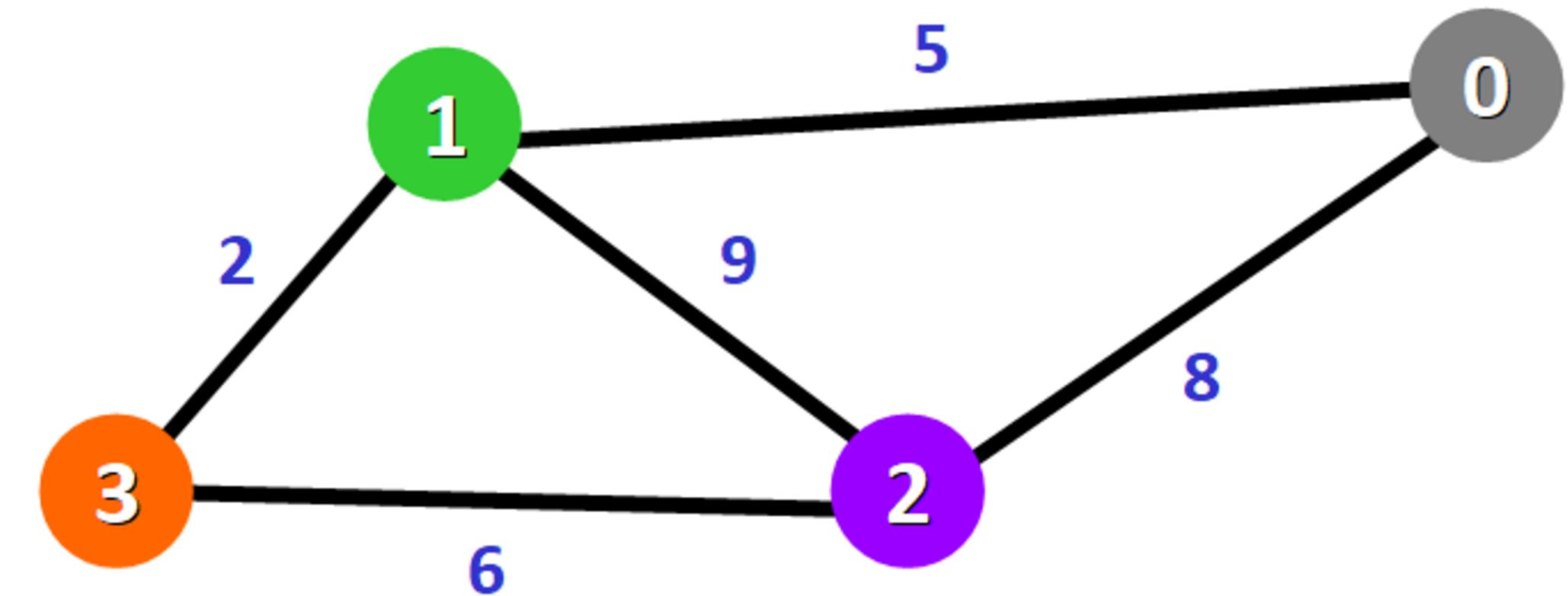
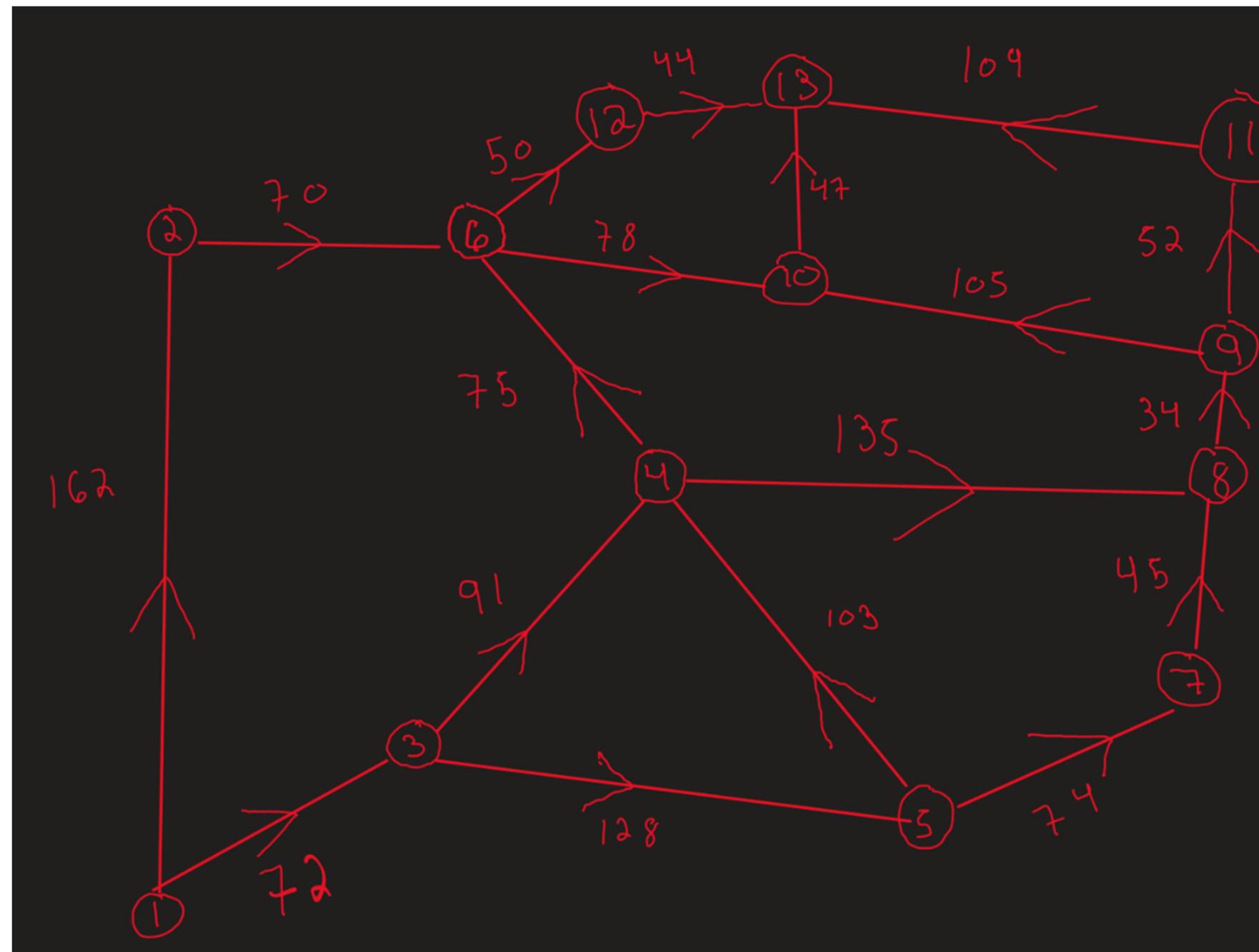


# Manuel Arambula Gonzalez

## Implementación del Algoritmo de Dijkstra en C++

### utilizando Google Maps





```
● manuel@manuel-IdeaPadL7:~/Datastructures/dijkstra$ g++ -o f main.cpp
● manuel@manuel-IdeaPadL7:~/Datastructures/dijkstra$ ./f
Processing node 1 with distance 0
  Checking edge (1 -> 2) with weight 162
  Updated distance for node 2 to 162
  Checking edge (1 -> 3) with weight 72
  Updated distance for node 3 to 72
Processing node 3 with distance 72
  Checking edge (3 -> 4) with weight 91
  Updated distance for node 4 to 163
  Checking edge (3 -> 5) with weight 128
  Updated distance for node 5 to 200
Processing node 2 with distance 162
  Checking edge (2 -> 6) with weight 70
  Updated distance for node 6 to 232
Processing node 4 with distance 163
  Checking edge (4 -> 6) with weight 75
  Checking edge (4 -> 8) with weight 135
  Updated distance for node 8 to 298
  Checking edge (4 -> 5) with weight 103
Processing node 5 with distance 200
  Checking edge (5 -> 4) with weight 103
  Checking edge (5 -> 7) with weight 74
  Updated distance for node 7 to 274
Processing node 6 with distance 232
  Checking edge (6 -> 12) with weight 50
  Updated distance for node 12 to 282
  Checking edge (6 -> 10) with weight 78
  Updated distance for node 10 to 310
Processing node 7 with distance 274
  Checking edge (7 -> 8) with weight 45
Processing node 12 with distance 282
  Checking edge (12 -> 13) with weight 44
  Updated distance for node 13 to 326
Processing node 8 with distance 298
  Checking edge (8 -> 4) with weight 135
  Checking edge (8 -> 9) with weight 34
  Updated distance for node 9 to 332
Processing node 10 with distance 310
  Checking edge (10 -> 13) with weight 47
Processing node 13 with distance 326
Processing node 9 with distance 332
  Checking edge (9 -> 10) with weight 105
  Checking edge (9 -> 11) with weight 52
  Updated distance for node 11 to 384
Processing node 11 with distance 384
  Checking edge (11 -> 13) with weight 109
Shortest path to node 13 has a distance of 326
Path: 1 2 6 12 13
```

```
● manuel@manuel-IdeaPadL7:~/Datastructures/dijkstra$ g++ -o d main.cpp
● manuel@manuel-IdeaPadL7:~/Datastructures/dijkstra$ ./d
Processing node 1 with distance 0
  Checking edge (1 -> 2) with weight 162
  Updated distance for node 2 to 162
  Checking edge (1 -> 3) with weight 72
  Updated distance for node 3 to 72
Processing node 3 with distance 72
  Checking edge (3 -> 4) with weight 91
  Updated distance for node 4 to 163
  Checking edge (3 -> 5) with weight 128
  Updated distance for node 5 to 200
Processing node 2 with distance 162
  Checking edge (2 -> 6) with weight 70
  Updated distance for node 6 to 232
Processing node 4 with distance 163
  Checking edge (4 -> 6) with weight 75
  Checking edge (4 -> 8) with weight 135
  Updated distance for node 8 to 298
  Checking edge (4 -> 5) with weight 103
Processing node 5 with distance 200
  Checking edge (5 -> 4) with weight 103
  Checking edge (5 -> 7) with weight 74
  Updated distance for node 7 to 274
Processing node 6 with distance 232
  Checking edge (6 -> 12) with weight 50
  Updated distance for node 12 to 282
  Checking edge (6 -> 10) with weight 78
  Updated distance for node 10 to 310
Processing node 7 with distance 274
  Checking edge (7 -> 8) with weight 45
Processing node 12 with distance 282
  Checking edge (12 -> 13) with weight 44
  Updated distance for node 13 to 326
Processing node 8 with distance 298
  Checking edge (8 -> 4) with weight 135
  Checking edge (8 -> 9) with weight 34
  Updated distance for node 9 to 332
Processing node 10 with distance 310
  Checking edge (10 -> 13) with weight 47
Processing node 13 with distance 326
Processing node 9 with distance 332
  Checking edge (9 -> 10) with weight 105
  Checking edge (9 -> 11) with weight 52
  Updated distance for node 11 to 384
Processing node 11 with distance 384
  Checking edge (11 -> 13) with weight 109
Shortest path to node 11 has a distance of 384
Path: 1 3 4 8 9 11
```