

ALVAREZ Julián 14173 23/06/23

```
# define t_graph_elem Char*  
# define t_matrix_elem int
```

```
(2) # define t_queue_elem Char*
```

```
TYPE def struct {
```

```
    int Min;  
    queue* Route;  
} MAP;
```

Bien definida la estructura

```
MAP* get_PATH (graph* g, Char* Origen, Char* destino, matrix* distancias,  
               matrix* precedencias)  
{  
    if (!g) return;
```

```
    Map* Trip = (Map*) malloc (sizeof(Map));
```

Reserva memoria

```
    int k=0;
```

```
    int i = graph_vertex_index (g, Origen, strcmp);
```

Levanta perfectamente los índices

```
    int j = graph_vertex_index (g, destino, strcmp);
```

```
    Trip->Min = matrix_get (distancias, i, j);
```

```
    Trip->Route = queue_new();
```

```
    enqueue (Trip->Route, graph_vertex_get (g, i));
```

Mete origen en la queue

```
    while (j != matrix_get (precedencias, i, j))
```

```
    {  
        k = matrix_get (precedencias, i, j);
```

```
        enqueue (Trip->Route, graph_vertex_get (g, k));
```

```
        i = k;
```

```
    }
```

```
    enqueue (Trip->Route, graph_vertex_get (g, j));
```

Esta está de mas

```
    return Trip;
```

```
}
```