

### **Statement TI3**

The "Parque del Café" is a recognized tourist spot in Quindío and, in general, in Colombia. The place is too large, it has several feeding areas, rides, vegetation, lodgings and quite historical and fun routes. Likewise, one of the dilemmas that is most presented to tourists and in general to those users who enter the park is the route they must take, that is, visit the majority of possible attractions within a certain time, then, the place It is too big and people often get lost or cannot enjoy their favorite attractions because time is limited.

Therefore, the manager of the coffee park has asked us to create an application that allows users to find the fastest route to all the attractions or to the attractions they want to visit. For this, it has been requested to use weighted graphs that each vertex represents an attraction and each edge represents a path with a time. In addition to this, each attraction has an estimated time in line, maximum number of people and the time spent inside the attraction.

The program must also have a graphical interface that allows the visualization of the map and the shortest route found, this must tell the user which attractions to visit first. The program should allow the user to enter 2 different types of graphs (adjacency list and adjacency matrix) which have the weight of each edge and the current information of each attraction (time in queue, time in attraction).