Design and Time analysis

1. We have used **Graph data structure** using adjacency list; to represent building and network of roads between those building.
2. In order to calculate shortest distance between hospital and airport, we have used **Dijkstra’s algorithm**. This algorithm helps us in finding shortest distance of source node from all the other nodes in a given graph, it is a greedy algorithm that’s why it will choose for best available solution at every step.
3. Running time of Dijkstra for a graph represented as adjacency list is **O((n+e)lg(n))**, where n is the number of nodes and e is the number of edges.