Team Members:

Al Julanda Al-Mahfudhi
Abdullah Alsayyar
Karshan Arjun

Team Roles:
Al-Mahfudhi helped out with ideas of the code and coding.
Alsayyer did the C++ code and ideas of the code.
Arjun did testing on the code, the report and helped out on ideas of the code.

1. We use DFS to construct the graph traversal fro this project. The use of the vertices were to get each of the input of the input file and the edges were used to to connect the next node to the other node.

2. We used DFS for the algorithm.

```
DFS(G,v)   ( v is the vertex where the search starts )
      Stack S := {};  ( start with an empty stack )
      for each vertex u, set visited[u] := false;
      push S, v;
      while (S is not empty) do
        u := pop S;
        if (not visited[u]) then
          visited[u] := true;
          for each unvisited neighbour w of u
            push S, w;
        end if
      end while
    END DFS()
```

3. The time complexity of the algorithm is O(n^2 * (V+E)).