INTRODUCTION

A social network is social structure that maps out the relationships between individuals. If you sat down with a pen and paper, it would be difficult to map out all the people with whom you are connected and all the people with whom they are connected. That's why this social networking system is so powerful.

Online social networks facilitate easy communicate among the individuals using simple web interfaces. There are several online social networking sites such as Facebook, LinkedIn and Twitter. Each of these sites has its own unique style, functionality and patterns of usage.

Social network sites allow the users to create profile pages, offers the ability to personalize the look and feel of the home page, explore relationship and connections, and ability to customize the privacy control. Social network sites contain millions of users and large volume of data shared among the users. Social network analysis is the mapping and measuring of relationships and flows between people, groups, organizations, computers, and other connected information/knowledge entities. The nodes in the network are the people and groups while the links show relationships or flows between the nodes. Social Network Analysis provides both a visual and a mathematical analysis of human relationships.

Here we use the concept of graphs to represent the social networking system with people or users as its vertices. An edge between two vertices implies that the people represented by the edges are friends of each other.

This program provides the users many features like creating account, logging into the account, messaging, sending friend requests, searching for friend suggestions, editing personal information, finding shortest link between two people and so on.
We can find the path between two people by running a BFS algorithm, starting the traversal from one person in level order until we reach the other person at some point and hence, we conclude the path.