**[Friend’s Recommendation system]**

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**Goal:**

This Project will demonstrate a system of how a user gets recommended “people he may know” on social media platforms based on mutual friends and common interests.

**Description:**

Each node of a graph will be store an individual user’s data, and if two users are friends then the nodes of those two will be connected

Each node will have a queue which will have all the friend requests stored in it, and a linked list that will have all the posts of a user stored

Each edge of a node will have a certain weight. The closer two friends are the lesser weight they will have. Close friends will see each other’s posts and mutual friends.

A user can even like or dislike a post which will also affect the weight of the edge.

We will also use heap so that we can implement Dijkstra’s shortest path algorithm to find the closest friend of a given user(node)

We may also use hash table to convert complicated user data into indexes for faster accessibility

**List of Features:**

**A user can:**

1. Accept a Friend request
2. Will have his liked posts saved
3. Will be shown recommendations by the system of people he may want to add as his friends if they have liked same posts and/or have mutual friends
4. Send a friend request
5. A newsfeed like thing where a user will be able to see all his posts, his close friend’s posts and friend requests

**Tools & Techniques:**

The project will be deployed as a windows form application. The language used will be C++ and for IDE Dev C++ will primarily be used.

**Submitted to:** Muhammad Ali Fatmi **Signature:** \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_