Project Proposal

Team Details:

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System

Our team has planned to create a **Social Network Website**, which will give its users access to the following functionality:

1) **Website Access**: Allow Users to login, signup, deactivate their accounts, or reset their passwords
2) **User Profile:** Allow Users to upload Profile Picture, add Personal Details and share Hobbies.
3) **Homepage:** Share relevant posts of friends and pages on User's Homepage.
4) **User Timeline:** Allow users to share posts in the form of texts, photos and videos
5) **Visiting Timelines:** Allow Users to visit other timelines and pages, comment and like the posts
6) **Friendlist:** Maintain Friend-List for every User, sending Friend Requests and Unfollowing Friends
7) **Messenger:** Private Messenger for friends to chat with each other
   Optionally, features such as Disappearing messages and Encryption can be added.
8) **Friendship Recommendation:** Suggest Friends based on Hobbies, and Mutual Friends
9) **User Activity Analysis:** Users can access website analytics such as Online frequency & Daily Use.

Depending upon the availability of time, we plan to implement the following features:

10) **Groups and Pages:** Create Groups and Pages, which can be followed / unfollowed.
11) **Status:** Share videos and images as Profile Status.
12) **User Privileges**: Allow users certain admin privileges to their pages and profile such as access.
13) **Admin Dashboard:** Authorized information accessible to website admins, such as user count

Relevant Concepts

This project will cover many relevant Database topics, which involve:

1) **Relation Database**, to store user profiles, groups and other tables.
2) **Temporal Database**, to store various timestamped data such as Comments, Posts etc
3) **Graph Database**, to store Friend-Lists and perform Friendship Recommendation
4) **Database Privileges**, for implementation of various Privileges provided to users and admins
5) **Time-Series Analysis**, for providing website analysis, such as Daily Use
6) **Authentication**, for secure access to the database and web pages

Project Timeline

We plan to follow the Submission Timeline provided for the project:

Project Deliverable	Approx deadline (to be finalized on Moodle)	% of project grade
Team formation, first sketch of the project requirements defining scope.	Mar 7th	5
Complete requirements & Analysis: Detailed enumerated english requirements, Complete ER diagram, forms, use cases in detail.	Mar 20th	15
Design Doc: Normalized schema, Indexes, DDL, Data load scripts, SQL for transactions, Detailed forms, (optionally) Controller logic	Apr 1st	30
Detailed Test Plan including load testing	Apr 1st	10
Final report (everything so far + test results + load testing results + conclusions)	Apr 20th	10
Demo and viva	TBA	30