INFO6250 – Spring 2021 Semester Final Project

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**WeConnect**

**(Social Networking Web Application)**

**Project Proposal**

**Introduction**

Social Networking Sites have proven time and again to be an interactive and fun way of connecting with people around the world. While being able to stay in contact with your circle of friends and family, these sites also help in meeting new people and making new connections. These sites have made it a lot easier to find people of similar interests from around the world. With timely advances in these sites, it has adapted several features like videos, e-commerce marketing pages, games, etc. that make it more interactive, but at the same time, it keeps the users so much engaged that they tend to spend lot of their time in these applications. It is important to keep track of time spent and authenticity of posts in these sites especially now as it has lot of influence on large population worldwide.

**Problem:**

Social networking site is a fun way of meeting people but we need to take maximum efforts on improvising the security and the information it holds to keep it authentic and informative that could help the users to feel safer and have a good influence with it.

**Solution**:

We would be developing a web application built on spring framework and hibernate that will make maximum efforts to improve the security and be informative for the users registering and using the application.

**Project Description:**

WeConnect is a Social Networking Web Application inspired from Facebook built in Spring MVC and Hibernate. It has the ideal features of social networking site like creating user account, updating profile, posting and reacting on friend’s posts, connecting with other users and joining groups.

Efforts will be made to have more informative sections and improvised tracking of activities and authentication of users.

Areas of Information improvement:

* Add section for local helpline details
* Add local live news section
* Ability to publish and download blogs and pages

Areas related to safeguard security:

* Choice of making details on pages private or public
* Blogs being published would need to be reviewed and accepted by the admins
* Dual authentication for user registration
* Tracking of time and activities in the groups and pages
* Ability to report pages and posts

**Roles and features of the web application:**

Admin

1. Take action against Report pages and profiles

On receiving report requests, admin can access the user profile, time of usage, activities in the past month

Admin can email the user, revoke access or escalate in case of serious issue.

1. Track activities

Admin can view all the logs and graphs at any point to check for any suspicious activity.

1. Upload forms and update helpline page
2. Update Details in the Web application.
3. Review and accept blog posts.

Users:

1. Create a user account, login and logout of the application.
2. Update account details and profile photo.
3. Choice of making posts and account details private or public.
4. Send and respond to connection requests from other users.
5. Upload posts and interact with other posts by friends list.
6. Ability to report page/photo.
7. Download or public blogs
8. Delete Account.

**Role interactions** (Initial Draft – Would improvise along the project timeline):

1. User to Admin

* User could report pages and Admin could review them and take action
* User could send questions about the application that could be addressed by the admin
* User could submit blog requests and admin would need to review it.

1. Admin to User

* Admin updates the helpline details for each location – user could access It anytime
* Admin will update frequent questions pages
* Admin could update forms and pages informative for the users (Users could download them)

1. User to User

* Connection request between users
* React on posts of other users
* Rate other user blogs

**Tracking in the application:**

We would be making efforts to implement better tracking of time and activities in the web application.

Graphs:

* Graph showing time utilization by users.
* Charts showing category of interactive activities and groups.
* Charts of Application utilization based on location, based on age group, based on gender, based on interests.
* Graph showing highest activity time (Uploading, commenting, messaging )
* Charts showing categories of downloads made from the web application.
* Charts showing rate of accessing helpline from the application.

Log:

* Activity in the past week(Number of registered users, deleted users, blogs published, posts uploaded, posts reported, etc.)

**Project Implementation Plan:**

For this project I will be implementing below concepts learnt from the Web Development Tools and Method class:

* Spring MVC and Hibernate with Annotated Controllers.
* DAO Patterns and JDBC concepts
* Role to role interaction
* Interceptor concepts for handling requests
* PDF/Excel Sheet View
* Form Submission Handling
* HandlerMapping
* Session Management
* Authentication and Authorization
* IOC Dependency injection

Database : MySQL

Programming Language: Java 8

Application server: Tomcat

Frond End Technology: Hibernate, JSP, JavaScript, HTML, CSS, AJAX

Back End Technology: Spring (Server controller), Web MVC

Versioning : Maintained by Git

**Future Improvements:**

I would research more and make efforts to implement the below if time permits in the project:

1. Log details on login and logout time of every user.
2. Alert user when trying to click on forget password more than10 times.
3. Track location of login.
4. Forgot password? Feature to reset via email reset password link.
5. Chat messenger in the web application

Github repository : https://github.com/bhatmanasa/INFO6250\_FinalProject.git