Project Proposal
SE 3112 - Software Project Lab II

Project Ovijog

By Team Connector

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Introduction

This is a proposal report for Software Project Lab II. This project will be developed during the 5th semester of BSSE, Institute of Information Technology, Noakhali Science and Technology University from 12 June, 2022 by the proposal presentation and the final project will be delivered in 08 September, 2022. Our team will work along with our regular academic courses. Our project “Project Ovijog” will connect all students and teachers of our university. We will basically create a platform where a teacher or student can post a complaint about their problem and all users can see it. Through our project, the university authority will be able to easily understand the problems of the university teachers, students. And the authority will work to solve the problems. We will create a beautiful environment in our university. Teachers and students will be also be able to fulfil their rights.

Motivations

Noakhali Science and Technology is one of the most renowned universities. There are many teachers and students in our university. Unfortunately, our teachers and students face a variety of problems on campus. For example, students suffer a lot due to lack of transport. There is no canteen in our campus, food quality problem. Many students have problems with their accommodation, drinking water and other problems. Besides, the teachers also face many problems including food, housing problems, lack of adequate buses for transportation. Both the teacher and the student face different problems. But it is a matter of regret that there is no internal system in our university where anyone can talk about their problems without revealing their identity. They posted their problems on the Facebook group. But in Facebook group, it is not clear how many students are facing the same problem. The profile of the person who post, is also visible to everyone. Trending problem, solved problem, unsolved problems are not seen. We see teachers and students wanting a platform where they can complain about their problems. This is one of the main reasons for our motivation. We will do a project called "Project Ovijog", where teachers and students can post all their complaints and all users can see that post. If users also face this problem, they will vote. upvote and if they do not face the problem, then give downvote.

Objectives

We will focus on achieving the following objectives:

- Develop responsive web application.
- Maintain a detailed database of the users.
- Creating a virtual connection of teachers, students with authority.
- Helping everyone to reach the authority with problems.
- Bring the attention of the authority to solve the problems that users are facing.

Goals

Through the project our goal is to learn

- Design Pattern
- Implementation algorithm.
- Group Work.
- Creation of desktop applications.
- Corporate culture

Target Customers

The target customers for our system are students, teachers, chairman, directors and varsity authority. All customers priorities are the same. Everyone will come forward with everyone's problem.

Application Features & Description

1. Sign in and sign out: Any member who is related with Noakhali Science and Technology University can sign into our system after providing valid information and sign out anytime. If account is not created then account must be created first. While creating account student will be verified with their educational mail and teacher will be verified with official mail.

2. Post Complain: Students or teachers will be able to post their problems. The account information of the person who post a problem will be kept confidential. If they want, they can also edit their complain and also able to delete their complain.

3. Show trending problem: After logging in to the account will show the trending problems in the dashboard. Weekly, monthly trending problems can be seen if they want. Trending problem will be shown based on users' upvotes. Complaints that get more likes will be on top.

4. Report: users will be able to report any complaints to the admin if they think it's a fake post. Admin can take other actions including post deleting.

5. Quick and easy search: Any member can search to see trending problems. They can search the problem.

6. Filtering problem by category: user will be able to see the problem by category wise filtering. Users will select the complaint category at the time of posting the complaint.

7. Mark as solved: If the authority solves any problem, then the user will mark his post as solved.

8. Upvote and Downvote: If a user is facing a problem which is already posted by someone. And if they wish, they can upvote the post. Users will be able to vote in the post to bring any problem to trending.

9. Merge same complaint: complaints will be merged if many people post the same problem. For example, if many students post about bus problem, all of them will be merged.

10. Comment: If someone complaints, other users will be able to give their opinion in that post by commenting.

Models, Tools and Resources

Model

In our SPL-I project we used evolutionary model. Using this model, it made our job a lot easier. Since the code is tested at the end of each cycle, at the end of the project we able to create an error free project. Evolutionary model is a combination of iterative and incremental approach to software development. Evolutionary model is commonly used when the client wants to start using the core features instead of waiting for the full project. Evolutionary model is also used in object-oriented software development because the system can be easily portioned into units in terms of object. The Evolutionary development model divides the development cycle into smaller, incremental waterfall models in which users are able to get access to the product at the end of each cycle. This time also taking experience from the previous year project, we want to implement evolutionary model. One of the main reasons we want to use this model is, it reduces the error because the core modules get tested thoroughly. And a user gets a chance to experiment partially developed system.

Tools

Table 1: Tools

Category	**Name and Description**
Text Editor Learning Resource	Visual Studio Code
Local Server	Xampp Control Panel
RDBMS	MySQL
Language	HTML, CSS, JavaScript, PHP, SQL

Resources

Table 2: Resources

Category	Name and Description
Learning Resource	W3 School
Book Resources	Web technologies by Jeffrey C. Jackson
Online Resources	www.github.com stackoverflow.com

Work Distribution

Table 3: Work Distribution

Task	Active Member
Proposal Presentation	Armanur Rashid, Arnab Dey, Nayeem Khan
Proposal Report	Armanur Rashid, Arnab Dey, Nayeem Khan
Requirement Analysis and Specification	Armanur Rashid, Arnab Dey, Nayeem Khan
Database Design	Armanur Rashid, Arnab Dey, Nayeem Khan
User Interface Design and Study	Armanur Rashid, Arnab Dey, Nayeem Khan
Coding and Algorithm	Armanur Rashid, Arnab Dey, Nayeem Khan
Final Testing	Armanur Rashid, Arnab Dey, Nayeem Khan

Proposed Timeline

Table 4: Proposed Timeline

Task	Deadline
Proposal Presentation	Within 12 June 2022
Proposal Report	Within 16 June 2022
Requirement Specification	Within 5 July
User Interface Design and Study	Within 12 July 2022
Coding and Algorithm	Within 25 August 2022
Final Testing	Within 30 August 2022
Delivery	Within 8 September 2022

Time Scale

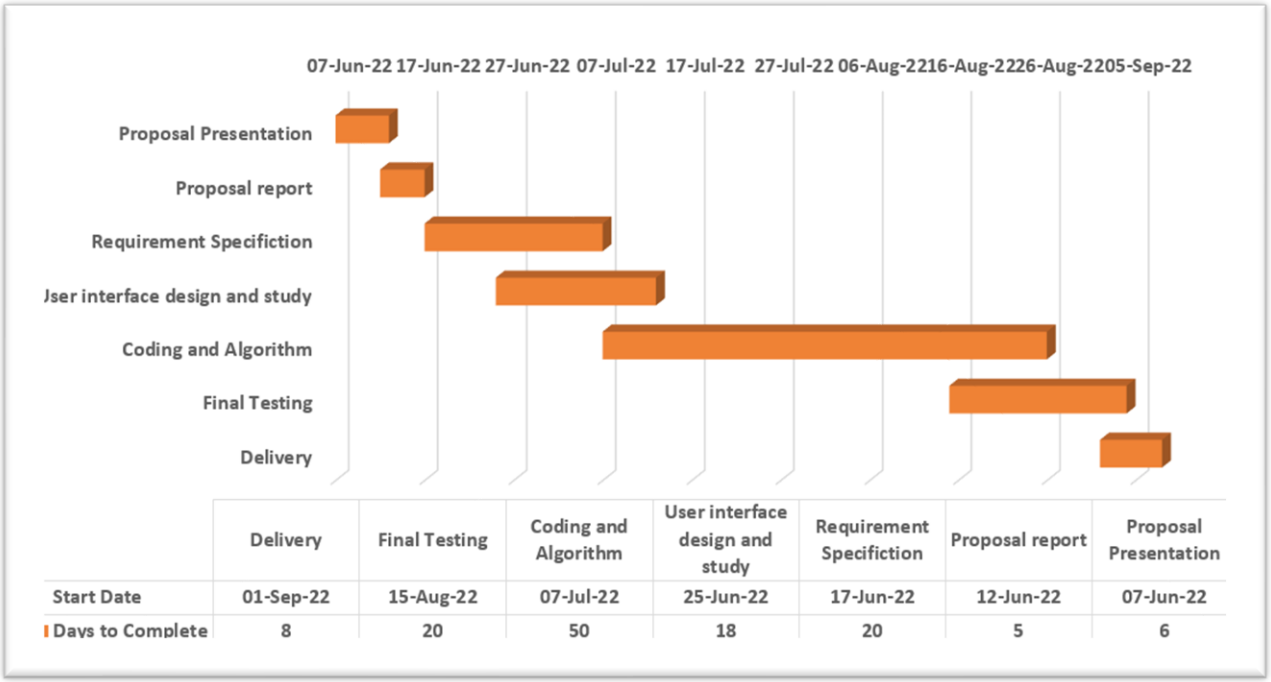

Figure 1: Time Scale Gnatt Chart

Deliverables

1. Proposal Report, Final Report
2. Source Code
3. Documentation of Software Requirements and Specification
4. User Manual
5. Video Tutorial of the system.

Challenges

The main challenges to face during developing this system are

1. Automatically update the trending problems.
2. Follow the software process model (Evolutionary Model)
3. Validate each member and checking if he/she is an authentic member of NSTU or not
4. Handling security attacks.
5. Figuring out exact technique to merge same problem.
6. Implementing the proper algorithm so that complexity is less.