

Software Engineering (CS301)

Feasibility Study Report

-The Moderators
4th Sem CSE-Sec-A

Introduction

Problem Statement:

The current applications available for team management systems do not have a user-friendly interface and lack a chat application integrated within the same application. Also, text-to-speech and speech-to-text features have not been implemented in a blogging site, let alone a social media platform.

Stakeholders:

C.Nikhil Karthik (21bcs024)
Ankur De (21bcs011)
Anand Kumar Singh (21bcs009)
Avaneesh Sundarajan(21bcs020)
Anish Kumar Sinha (21bcs010)

Business Profile:

Our team is an enthusiastic and dedicated group of individuals who are willing to put in their best to make sure we come up with our final product. We, the team members of "Moderators" have decided to work on a project that allows our users to effectively manage and modify the projects that they take up. We plan to employ the agile methodology to meet our daily goals and to make sure that our product is up to the mark with the help of regular feedback from our instructor Dr. Uma Seshadri.

Problems in the existing systems:

Our main motive is to make an user-friendly platform unlike the already existing ones, that allows everyone to manage their projects, no matter what scale, or field they are in. Also, as mentioned above we plan to add more helpful features to our product that the already existing project-managing-apps lack that reduces the complexity and work load for our customers.

Project Scope

We are confident that this project will attract a lot of users who want to properly manage their tasks and projects, including students from our institute who struggle with the already existing complex project management systems. Thus this project has a lot of scope and we can earn revenue from web traffic as well as collaboration with other services.

Methodology and tools used for Feasibility study

Brainstorming

- Expectation of the system- easy team management system.
- Organization rules- user friendly interface, various helpful features, efficient communication with stakeholders.
- How to solve the issue- creating a platform with an integrated chat application along with the main feature of task management.

Interface analysis

- Type of data exchanged between users : text and documents.
- When will the data be exchanged: - the data exchange will be in real time
- How to implement the interface: - using MERN stack and Socket.io
- Need of the interface: - for ease in usability and convenience

Observation of our findings

1. Market Research:

We interviewed our batchmates and since they all were slowly starting with development, a common problem that they all faced was the absence of a service that allows them to seamlessly access all of their current project work without having to access multiple platforms to meet their requirements. Also the absence of an integrated chat application renders communication between teams and individuals hectic and ineffective.

2. Technical Feasibility

The proposed project will be developed only for web based environment for the front-end we will be using EJS,ReactJs and tailwindCSS and for the server-side, we will be using MongoDB for our database requirements,NodeJs and Express Js for our server-side programming and npm for installing required packages.For the integrated Chat Application we will be using Socket.io which is an npm package which allows users to send messages using HTTP protocols.

3. Schedule Feasibility

We estimate that our project will be in good shape in the time span of 3 months. We plan to work day in and day out to make that possible. We plan to divide the work appropriately among the developers and give them proper freedom to implement the changes they deem necessary. Also we plan to implement regular testing of our project, so that all bugs are fixed within the required time frame.

4. Cost Feasibility

The budget allocated towards our project will be evenly split between the design team, front-end team and the back-end team. Also any additional required services which are paid for including the promotion of the product that we develop will be covered by the budget. To promote our product, we plan to carry out extensive marketing campaigns which will also be covered by the budget. As mentioned above we plan to bring in our revenue through web-traffic and collaboration with other services.

5. Risk Assessment

Our product, like every other new product in the industry, runs the risk of not gaining popularity among our target audience as there are other platforms which already exist and are quite popular. However, the users who identify the true extent and potential of our service will definitely migrate to ours.

Also, since we are not a legally established company, we may face legal problems along the way for which we are not fully equipped.

Also, some services like cloud services are paid for and access to them is given to only a few. We may face difficulties if we want to use them for scaling up our product in the future by employing these services.

6. Conclusion

The proposed project is technically and economically feasible. The system is expected to improve the user experience in the field of development and task management.

The project is expected to generate an excellent return on investment.

As mentioned above , we will face a few problems throughout the project but we will give it our best to overcome all these issues and adjourn to the provided timeline.

Challenges and assumptions considered for the project

1. As mentioned above, our product, like every other new product in the industry, runs the risk of not gaining popularity among our target audience as there are other platforms which already exist and are quite popular.
2. Due to our budget constraints, we do not have someone who is properly fluent in the economical aspects of running a company. Thus the distribution of resources among the departments of the project teams may be uneven and to some extent unfair. However we plan to address this issue as soon as our product starts making revenue.
3. Because of the above reason, we also do not have a proper legal team to take care of any legal issues our project might face while implementing other services. This issue will also be addressed once our product starts earning revenue.

Glossary + References

- <https://microsoft.github.io/code-with-engineering-playbook/machine-learning/ml-feasibility-study/>
- <https://learn.microsoft.com/en-us/azure/architecture/serverless-quest/code-with>
- <https://www.investopedia.com/terms/f/feasibility-study.asp>