IT314 Software Engineering Team 28

Feasibility Study Report

[Keywords: Software Engineering, Progress, Tracker, Monitor]

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Overview

This is the feasibility study report for Software Engineering Progress Tracker, Team 28's IT314 Software Engineering course project idea.

Target Audience

Software developers

Mentors

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Developers

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Document Revision History

Version	Primary Author(s)	Description	Reviewer(s)	Date
1	S. Chaitanya Prasad and Khyati Mahajan	Preliminary Analysis for feasibility	Shaleen Kumar Gupta	26/01/2016

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1. Introduction

Software Engineering is of immense importance in the world today due to the ubiquity of software in every aspect of social life. A software engineering process defines a set of processes and guidelines that are used by the parent company to effectively and efficiently manage, develop and maintain their software product. Such a product therefore does not only contain programming related complexity, but also includes determining the business models and associated use cases before the project can even become live. Software developers also need to coordinate among themselves to develop the variety of modules that need to be completed often keeping strict deadlines.

In such a complex software development ecosystem the project aims to create a web application which can provide a tool to parent companies to centrally monitor the progress of their software development projects, which can help organize not only the software development team but also keep an environment of transparency between business managers and the software development team. The application would contain functionality to choose and modify existing software development models. The application would then contain features to record the nature and amount of documentation in each phase of software development. As the team progress through the different phases and achieves various milestones, they could record their progress on the application by checking of the various documents listed for each phase in the application. In this manner the progress of team will be present for all to view and monitor.

The aim of this feasibility report is to evaluate and analyses the potential of the project and the practical concerns which the team may face working in a team of eight people with different skill sets.

2. Feasibility

2.1 Technical

As per the preliminary requirements that would be required to make the application functional and keeping in mind the relative comfort of the team members with the Python programming language as opposed to other languages, the team would be required to make the web application using the Python Flask Web framework along with HTML, CSS and JavaScript. The rationale behind this choice is as follows:-

- The relative comfort of the team members with Python as opposed to other

programming languages.
- Python Flask is an extremely customizable web framework with a simple learning curve compared to any of the other popular and stable frameworks.

Working on a full scale web application from scratch would require extensive knowledge of web development. In the current scenario there are only one to two members who have had prior web development experience, and only one of them are familiar with the Python Flask framework. In such a situation the website would need to be developed in addition to the team members devoting time learning Python Flask and JavaScript to such an extent so as to develop a smooth user experience and a stable backend. According to the team consensus this activity would require at least 30 hours of independent work over 3 weeks to be able to get an understanding of the development ecosystem to be able to attempt the current project.

The project idea would also require extensive study into the various software development methodologies and process so that the team may incorporate them into the application. Failure to do this would limit the use and functionality of the application with the result being that only niche software development projects using only the specific set of methodologies present in the web application would use it.

2.2 Economic

2.2.1 Cost Wise

All the software which the team will use in this project are free, so no costs will be incurred by our team.

The deployment of the software will be done on the Android Play Store, which will cost for making a developer profile, but since the team has a developer who already has an account, we will not incur costs for this.

The website will be hosted on a domain server which will have to be bought, and hence we will incur a cost for purchasing the domain to be used.

The client will only incur costs in the sense that an internet connection will be required to access the website and the app.

2.2.2 Time Wise

We will require around 50 person hours per week to finish the project as per our preliminary estimate.

2.3 Legal

The tools used for the purpose of this project are all Free and Open Source and hence do not contain legal clauses in their use. However some software development methodology that we may have incorporated into the application may be copyrighted and so we may have to obtain sufficient permissions from the parent organization.

2.4 Scheduling

The team will prepare milestones and set up a detailed timeline in the project proposal.
As per our preliminary analysis of the amount of time required to acquire the needed skills (considering the knowledge base of the team) and implement the plans made charted for the course, we believe the project will require more time than three months.

3. Conclusion

As per the feasibility analysis furnished above, we conclude that the project is not feasible for us. It will entail a lot of missed deadlines to finish within three months, which is undesirable for the software development process. Also, there are many available softwares which help with progress tracking, though not in the way we had in mind, but feasible to be used by users.
We are, hence, deciding not to move ahead with this project.

4. References

P.A Rodgers, G Green, A McGown (2000). *Using concept sketches to track design progress*, Design Studies Volume 21, Issue 5, September 2000, Pages 451–464.