CS370 - Software Engineering

Project Proposal

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Description:

We will be developing an integrated student organization management platform. Our

initial customer will be the Stargazers Astronomy Club here on campus at Truman State

University, but we plan to create a system that can be generalized to any student organization.

The main focus of the platform will be the roster management system, but we have plans to

integrate other functionality, such as reminders for tasks required to maintain good standing, and

potentially a calendar. We are also aiming to create different functionalities for different

executive members (i.e. paying money to Union & Involvement Services for treasurers, etc.).

We aim to create a platform where all organization information is located and can be

interacted with in a centralized location, which will provide a superior experience in comparison

to the distributed nature of many organizations' logbooks. We hope to increase ease of use and

accessibility for all club members as well as provide a platform where organization leaders can

plan, organize, and announce club events and collaborations. This platform will also help track

expenditures and dues.

The main risk associated with this system is the possibility of data breaches of sensitive

information such as personal identifying information and banking information. We will ensure

that all of the data is encrypted and not susceptible to known attacks such as SQL injections.

Another risk is the ease of access for lay-people. We hope to orient this platform to

non-computer science major users and create an easily-navigable graphical user interface.

Additionally, there is a risk that the short development cycle will allow bugs to slip through

undetected. We will maintain a robust testing and quality assurance regimen to mitigate this risk. We will continually examine our code and product for new possible risks that may crop up during the course of the development and implementation of the project. We will use proactive risk management techniques to combat these risks.

We hope to utilize a modified version of the Scrum process model combined with a Kanban board to organize stories per sprint as well as the overarching goals and objectives of the project. On the front-end side, we plan to use Adobe XD to prototype the layout, design, and functionality of the management system going forward. We will also use Github and the Git version control system as a means to collaborate over code and some documentation while we will collaborate over other documentation, write-ups, and proposals using Google Workspace/Drive.

As for stand-up meetings and updating the team on each other's progress, we are planning on meeting in person roughly thrice a week but will be in constant contact over the social media platform Discord. We will update each other on our progress during sprints that will last around 2 weeks. We plan to meet with the customer, Stargazers Vice President Austin Humbrecht, at least once a week. We will be sure to implement our customer's visions and adapt our development work based on the envisioned goals.