

Project Mustard Seed

Executive Summary

Community Partner

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Student Consulting Team

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Background

Kingdom Adventures is a Christian non-profit based in California whose mission is focused on the growth and development of under-privileged youth in the Philippines through education and diverse outreach programs. Project Mustard Seed (PMS) is one of several programs under the management of Kingdom Adventures. PMS started a new project to introduce programming to the curriculum at the Tagaytay Christian Academy – a K-12 private Christian school. It is looking to create an open-source app that its students can contribute to after learning the necessary programming skills.

Project Description

Project Opportunity

Project Mustard Seed realized the need that the children in the Filipino community need more than just reading and math to succeed: being able to code can unlock extraordinary opportunities in today's digital world. Currently, only a few individuals in the community that Kingdom Adventures serves realize the benefits of coding and teaching coding. However, if empowered with such coding skills, the underprivileged children of this community could benefit tremendously from job opportunities.

Project Vision

Theologos, the open-source web application will be presented as the motivating factor for both students and educators to learn coding – both because of its relation to the community's interests in terms of being a Biblical app and because it's an example of an app built by other students (the IS consulting team). The goal of the team was to create an MVP working app with 5 pages of the Bible saved in the database and allows users to read the Bible, enter comments, and submit votes.

Project Outcomes

The project includes a completely open-source, working Django web application with features such as the ability to load and display verses from the Bible (specifically the book of Philippians) stored in a Postgres database, the ability for users to read and write verse-by-verse commentary, the ability for users to vote on posts, and the ability for users to create accounts.

The team has also taken care to include thorough documentation for ease of handoff to the community partner in the form of code comments, standardized pull request and commit messages, instructions on how to set up and run the application on a local machine, Github Wiki guides, and a Github Kanban board with a list of completed and ongoing issues. The community partner is able to access all of the resources, pull and run the application successfully on their own computer, and has a general understanding of the project's code organization.

Project Deliverables

The project deliverables can be broken down into two main categories: source code and documentation. The source code is for the web app, a Bible commentary forum. The code also includes a parser which reads CSV files to a format suitable for the database. The documentation includes an architectural diagram, guides for Django workflows in the context of this project, a setup guide for running the web app on a computer, and guidelines on how to maintain the code and extend it in the future. Both the source code and documentation are housed in a publicly accessible GitHub repository.

Recommendations

The GitHub repository has many open issues that aim to improve Theologos. The issues fall into 5 categories: new features, UI/UX enhancement, future-proofing design, deployment, and bugs. In particular, future-proofing design and deployment are advanced topics that a future IS team could work on since it may be difficult for a beginner developer to work on them. The P1 and P2 lists contain more features and enhancements that the client envisions being implemented.

Student Consulting Team

Alice Hong served as project manager and developer. She is a third-year student majoring in Information Systems with minors in Computer Science and Human-Computer Interaction. She will be interning at Optum as a Technology Development intern and is interested in SWE.

Samiul Hoque was a developer and quality assurance administrator. He is a third-year student majoring in Information Systems with a minor in Computer Science. He will be interning at Paramount as a software engineer intern and is interested in SWE.

Sunny Liang was a developer and UX designer. She is a third-year student majoring in Information Systems and Human-Computer Interaction and minoring in Computer Science. She will be interning at Addepar as a software engineer intern and is interested in SWE.