

# **The Christian and Missionary Alliance: Bible Quizzing**

## **Executive Summary**

### **Community Partner**

Tom Reay

### **Student Development Team**

Ian Betancourt

Melinda Lin

Nathan Oh

Theophilus Onime

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## **Background**

The Christian and Missionary Alliance (CMA) is an evangelical Christian denomination that facilitates Bible Quizzing. Bible Quizzing is a student competition revolving around memorization and recitation of the Christian Bible. It is said that “Bible Quizzing brings people together and keeps focus on God” (Tom Reay, client partner). Bible Quizzing happens in many districts within the US such as Western Pennsylvania (WPA), Ohio Valley, as well as in Canada, and Middle Eastern countries.

Currently, a PHP web app database (<http://biblequizstats.org/index.php>) is used to maintain student and team Bible Quizzing performance and upcoming quiz information for the greater Pittsburgh region in the WPA district. The app is maintained mostly by Professor Heimann (“Prof H”). Our client partner is Tom Reay, who represents Allegheny Center Alliance Church (ACAC), one of CMA’s churches. Specifically, Tom represents the Bible Quizzing department of ACAC.

## **Project Description**

### **Project Opportunity**

CMA faces a fair number of problems with their existing solution. One problem is that most changes to the database require usage of the command line, hindering CMA members who do not possess such technical knowledge from easily updating the database. The second problem is that other districts/areas that participate in Bible Quizzing currently do not have technological databases like WPA. A third problem is that the current site does not calculate quiz scores.

### **Project Vision**

Our project seeks to provide the ability for an area admin like Tom to perform *all* the actions necessary to administer the record-keeping web application for WPA Bible Quizzing, biblequizstats.org. We aim to fill the gaps in the web interface and enable users with proper login credentials to perform their needed tasks which once required use of the command line.

For Bible Quizzing participants, our solution allows monitoring of their quizzing results. For the students’ friends and relatives, our solution enable them to see students’ Bible Quizzing results. For

area administrators, our solution provides them the ability to input scoring and quiz information into the database without specialized technical knowledge.

## **Project Outcomes**

Give an overview of your project outcomes. You don't have to include all that will be in your final report, but include important people, process, and technology outcomes (not just technology ones).

Through our solution, a new Ruby on Rails web app, we delivered the following overall values to our client organization. Three main values include **increasing the usability of the web app for non-technical users** by updating the user interface, **improving the user experience on the website** by allowing students to see rankings and imitating the mental model of the previous PHP web site, and **enhancing maintainability** by using a Ruby on Rails framework and **extending the web app audience to other districts besides CMA**.

## **Project Deliverables**

Deliverables include web application, wireframes, entity relationship diagram (ERD), data dictionary, design decisions (documentation), and other relevant photos/artifacts

## **Recommendations**

Due to the possibility of the server the web app is operating on dying, we recommend regular data backups and purchasing a backup server with RAID set up by a professional, which allows one server to take over immediately if the other dies without any loss of data. In potential occurrences of the web app breaking or system requirements changing, we recommend hiring a professional Rails developer, seeking help again from the CMU IS department, or seeking the help of technical ACAC member Professor Larry Heimann.

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## **Student Development Team**

**Melinda Lin** was the project manager. She is a third-year Information Systems major (class of 2016) with a minor in Business. Melinda is seeking a career in project management after she graduates from CMU.

**Nathan Oh** was the documentation lead. He is a third-year Information Systems major (class of 2016) with a minor in Chemistry. Nathan is seeking a career in medicine after he graduates from CMU.

**Theophilus Onime** was the assistant technical lead. He is a third-year Information Systems major (class of 2016) with a minor in Global Systems and Management. Theophilus is seeking a career in banking-technology after he graduates from CMU.

**Ian Betancourt** was the technical lead. He is a third-year Information Systems major (class of 2016) with a minor in Computer Science. Ian is seeking a career in computer programming after he graduates from CMU.