

Problem Statement

CS461 - CS Senior Capstone

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Abstract

For the CS461 final project, our team is going to do the campus event mobile application. For the campus event mobile application, it is proposed by David Vasquez to make campus life more convenient for each students and instructors. As we know, many of campus events happen every day. We need to create an application for our smart phone to help people in campus know what they shouldnt miss out. In this project, most difficult part is we should create this application in both IOS and Android platforms which to get more users who have a smart phone to involve our APP. Our team have already met our client David Vasquez and talked about the detail that how should we do for this project. We will use the React Native which is for using as the development language to create our APP on both platforms. We are going to add secure login in our project for our users who are in OSU to use their ONID account to login. Also, we will work with OSU various groups even Corvallis Community to get event data. The data will be stored in SQL database for this project. In the future, we plan to let all people who live in Corvallis even all Oregon to using our APP for not only OSU campus event but also all events in Oregon.

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Project Problem

The biggest challenge for this mobile application is it should run on both IOS and Android platforms. Our client didnt require us to do but we need more people to know and use our APP. For Android devices, the language we should to use which include Java and Kotlin. Java is the basement language to use in create an Android application. For Kotlin, it is statically-typed languagethat runs on Java. For IOS devices, Swift is the language which we would to use because this language is based on natural English and it is easy to learn how we should use it. Also, in the meeting last week, we talked about our design for this APP. Our APP is required to have a well-designed and user-friendly interface which include four navigation button on the bottom of the APP. Another problem is we need to have a secure login in this APP to provide safety for every account. These are our clients requirements for the detail in our APP we discussed last week. Last issue is the database, we are going to use one of the database SQL or NoSQL for our project.

Problem Solution

The first problem we should to figure out is using a development language to create APP in two different platforms. Our client David proposed that we can use React Native to write our application. React Native provides own application which we can easily create and run project on our own device. But for this language, everyone doesnt use it before so one thing we need to do is do research and learn how to use it. For the interface, David gave us some prototypes for example during the meeting, and we would like to use some tools online to make specific mockup of UI design to see if is achieve the requirement or not. Since our project is not relative to Oregon State University as the brand, we need to skip the trademark to avoid unnecessary trouble. For the login part, my teammate Xiaoli introduce me OAuth 2.0 for using secure login and connect data and server. If we would to use OAuth 2.0 in our secure login, it seems like our APP will have this function same as other mobile applications which have secure login. Another issue for us is database which is using for store event data for this project, David and our team talked about creating the database in using SQL.

Performance metrics

For the performance metrics, we will put our project in different parts to check each of the part works well or not. For the interface, we should make the mockup and show it to David to see how the mockup should fix to what he wants. For the language programming, all the testing should achieve each requirement in progress. Code will run in the background during the changing for features of application. As login part, the achievement will be the success of login to account information and connect to database. Also, we will have a stable and efficient database to store our huge event data. All the fixing will be undated in the night to make sure daily use for our audiences. When our team deliver all the applications on both IOS and Android, and test successfully, the whole project will be finished.