LVS Connect

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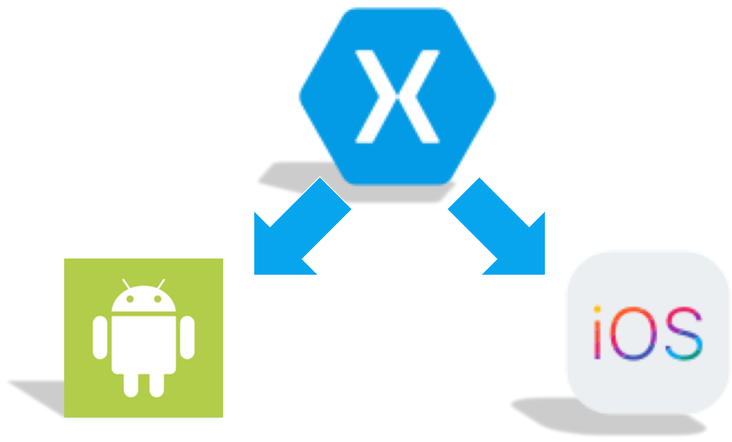
Introduction

The purpose of this project is to develop a cross platform mobile application for Lee Virtual School (LVS). The mobile app will act as a hub for all things LVS. The goal is to have a centralized location for information and resources, similar to their current website. The project will be developed for both iOS and Android mobile platforms. In summary, the goal of this project is to create a mobile app that teachers and students alike will gladly utilize.

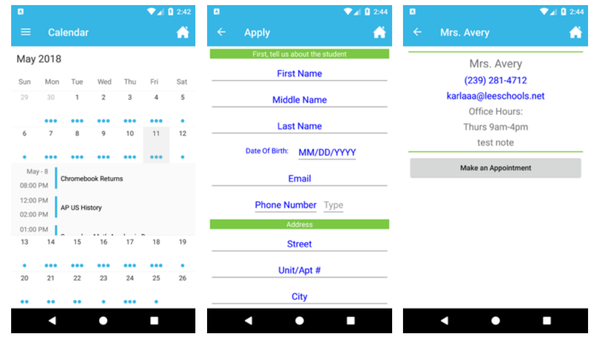
Abstract

Xamarin.Forms was utilized to develop a cross platform mobile application. Using one codebase Xamarin builds a compatible version of the application for both operating systems. Using .NETFramework, this project uses a combination of XAML and C#. XAML is used to build the user interfaces while C# is used in the code behind controller.



Sample Requirements Specification

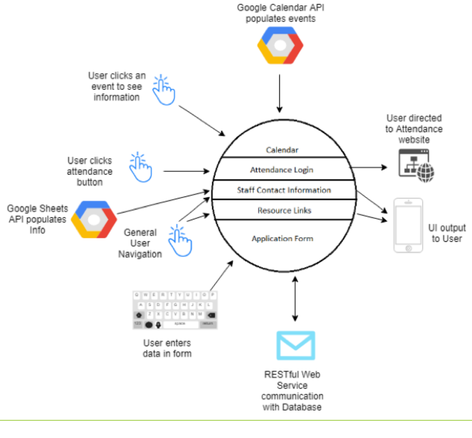
- The software shall function as a mobile app for iOS and Android devices.
- The software shall implement a way to view events from a Google Calendar within the application.
- The software shall provide the school's staff contact information including (but not limited to) Email, Phone, Available Hours, Courses, and a link to the Genbook appointment scheduling website.
- The software shall provide a "native" form to submit applications into Lee Virtual that includes all sections listed in the current PDF version of the application as shown in the Appendix LVS Application PDF.



Design Description

The application targets five main objectives: The Calendar, Attendance Login, Staff Contact Information, Resource Links, and an Application Form.

- The Calendar populates events from the Google Calendar API.
- The Attendance Login is a WebView that the user will be directed to.
- The Staff Contact Information populates data from the Google Sheets API.
- The Resource Links is a WebView that the user will be directed to.
- The Application Form will be submitted to the LVS Database over a RESTful Web Service.



Implementation

- Xamarin.Forms with XML and C#
- Entire application architecture built using these technologies
- Google Calendar and Google Sheets API's
- A public Google Calendar is used along with SyncFusion to populate the calendar within the application
- A Google Sheets spreadsheet is used to house the teachers' information
- RESTful Web Service
- A Student Application is submitted securely to the LVS Database

Syncfusion

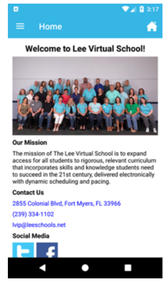
Google APIs

{REST}
RESTful Web Services

Conclusion

Xamarin.Forms has proven to be an efficient tools in developing cross-platform mobile applications. The original goal of developing a mobile app for LVS was achieved. In the future, the developers can continue to add features to the app, such as a tutorial on how to subscribe to the LVS calendar or a "native" way to view school resources.

Shelby Smith



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