



Saint Vincent College Cabuyao
Mamatid, Cabuyao. Laguna



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| | Surname | First Name | Middle Name |
| Program: | Bachelor of Science Information Technology | | |

PROJECT PRESENTATION

I. General Subject Area

Standalone Application for Saint Vincent College of Cabuyao

II. Specific Topic

Project Excelsior: A Standalone WebWrapper Application for the Students and Personnel of Saint Vincent College of Cabuyao

A. Introduction and Background

Since the internet become not only the most popular communication medium, it also advanced technologically making it reliable and dependable, a lot of use cases has emerged taking advantage of the said technology. Usage of internet from browsers and using internet services from web have become the most accessible way of utilizing the internet, from email, to instant messaging, and now even storage solutions we know now as “cloud”.

Many company offers different ways of accessing their internet applications and we all can agree that majority of them is accessible both in their native app, and as a Web Page by going to their respective URL. *Google* is one of the most popular company that offers their services both using a browser and by downloading their native apps, and as they realize that more and more apps are moving to cloud services, they concluded that usage of too powerful computer for just a cloud application is unnecessary which lead to the birth of *Chromebooks*, a power saving notebook based on top of their browser *Chrome* which is designed to only run Web-based applications and dependent to Internet.

Pandemic emerged at year 2020, and most of people got locked down. Way of alternative learning system was tried out and as of year 2022, most of institutions use sets of free learning and meeting tools from internet alongside their paid or proprietary Online Learning Management System. *Saint Vincent College of Cabuyao* have been using their own Student Portal, as well as their very own LMS. Sets of tools used in their classes are mainly done using Zoom, Google Meet, and other sets of free tools in the internet mostly accessed via web browser.



B. Project Objectives

The objective of this project is to minimize the usage of Web browser from the usage of Saint Vincent College of Cabuyao's System and LMS by developing a standalone web wrapper application that encloses the mentioned systems. This theoretically would minimize the incompatibility of the said tools, while increasing the ease of access and reliability as well as security. This application also aims to help users both student and staff alike by embedding relevant tools and other web apps inside of the application such as, scientific calculators, dictionary, office suites (word, excel, power point), etc.

Specific Problems:

1. Usage of one web browser in all the web application you use can cause cookie usage mix up, which tells another app too much about you, and it may appear crossly to the relevant tools you use.
2. Usage of different web browsers to isolate the data, but consumes more resources.
3. Usage of tools in browser and looking them up on web could be rather overwhelming and hard to manage overtime.
4. Lack of provided tools provided for student running Windows which is most likely not free.

C. Project Detail and Solution

As of Visual Studio Community 2019 to 2022, deprecation of web browser module via internet explorer has been implemented. Introduction of WebView2 engine using their own Microsoft Edge engine which is solely based on Chromium has been implemented which leads us to create quick web application solutions by embedding them into a runnable standalone application. While in Android's side, the libraries are built-in to the Android itself, requiring only the installation of the App and it is ready to go.

C.1 Desktop Application

Below are the technologies used in building the Desktop Application

- Microsoft Edge WebView2 Runtime
- .NET Framework 4.7.2
- Visual Studio Community 2022
- Built to be compatible with Windows 8.1, 10, and 11



C.2 Mobile Application

Below are the technologies used in building the Android Application

- Android WebView
- OpenJDK 11
- Android Studio
- Android SDK and API 19
- Built to run at Android Kitkat and up

D. Project Limitations

With all the technologies used declared, it is to know that this application is just a wrapper of the included tools to make it standalone. The performance of the apps inside of it is dependent to the server of that specific application, as well the user's computer performance + their internet connection. This application collects no data for personal usage and is just a web wrapper. All the remote data are stored within the app locally and the access would be depending on what tool you are opening and using but isolating it from all the web browsers you are using making it "standalone". But do note that any report of the included tool's misbehavior would be deliberated and shall be subjected to the removal of it within the Project Excelsior.

Due to Google's recent changes to usage of user's authentication, all Google Services and related to Google that needs authentication are instead redirected to user's default browser. Usage of Oauth is still being decided since it deals sensitively with user's Google Account and Information internally.

E. Frequently Asked Questions

- **What does this app do?**
 - This application compiles SVCC's LMS and Portal as well as packing relevant tools for students and personnel alike in a web wrapper called WebView2 for desktop and Android WebView for mobile
- **What does this app don't do?**
 - This app doesn't host and is not affiliated in anyway to any tools packed inside of it.
 - This app does not collect data for itself and instead let all the tools used to access their respective data but isolating it from your web browsers.
 - This app cannot run without internet connection.
 - This is not supported in Windows 7 (although doable, go figure yourself)



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- **Who made this application?**
 - This application is made by Zuriel Khristofer and Pixel Cowboy Studios under a proprietary license.
- **Who will maintain this application?**
 - The application will remain under a proprietary license and will be maintained by Pixel Cowboy Studios.
- **Is the application free to use?**
 - Yes, this application is a contribution for both students and personnel of SVCC (If they want to use it)
- **What are you asking in exchange of this? Since there is no free service?**
 - Scholarship? Absorption Assurance? Subject Exemption? Just kidding, really, this is an application we made for a student much like me, and could be used by newer students in the future. Legacy, recognition, that's the least me and my company are asking, but I'll be so honored to have what I mentioned above hehe. Also I have opened a way of donation in app in case there's a kind student who feel like we devs deserve it.

Project Proposed by:

A handwritten signature in dark ink, appearing to read "Zuriel Khristofer Cunanan", written over a horizontal line.

Zuriel Khristofer Cunanan