

## CCT College Dublin

### Assessment Cover Page

<b>Module Title:</b>	Cross Platform Development			
<b>Assessment Type:</b>	Group (3 - 4)			
<b>Assessment Title:</b>	CA Project			
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<b>Assessment Due Date:</b>	7 th May 2022 at 23:55 pm			
<b>Date of Submission:</b>	07/05/2022			
<b>Google Drive Video Link:</b>	<a href="https://drive.google.com/file/d/1ZeKFJIIJl5dABjLe4h24ap-X-d7zKmgT/view?usp=sharing">https://drive.google.com/file/d/1ZeKFJIIJl5dABjLe4h24ap-X-d7zKmgT/view?usp=sharing</a>			
<b>GitHub Depository</b>	<a href="https://github.com/lepidu/CPD_GroupProject">https://github.com/lepidu/CPD_GroupProject</a>			

#### Declaration

By submitting this assessment, I confirm that I have read the CCT policy on Academic Misconduct and understand the implications of submitting work that is not my own or does not appropriately reference material taken from a third party or other source. I declare it to be my own work and that all material from third parties has been appropriately referenced. I further confirm that this work has not previously been submitted for assessment by myself or someone else in CCT College Dublin or any other higher education institution.

## 1. Introduction

This is a brief report outlining each of the technologies used on the development of the project “*Student Visa Immigration App*”, as well as a sketch on where they were used and what the advantages obtained from using them. It presents the planning and the design specifications using wireframes tools. The aim of this project was to provide an App to serve the international students community with a web application that the students could use to ease the acquisition of the first student visa application process as well as to ease and speed up the process for the renewals ones.

Our team decided to work on this project because we are members of the international students community but also because it is a very large one, which has always been experiencing toughness and delays throughout the process of the acquisition of the student visa.

## 2. Student Visa Immigration Apps

The goal of this project is to make the acquisition of the student visa smoothly and faster than it has been delivered under the actual system. The development of the app started off with the sketching of the prototype for the application itself which is shown by the figure below.

LOGIN ADMIN	MENU BAR
INFO APP LOGO NAMES ETC	NEW USERS <input type="text"/>  RENEW VISA <input type="text"/>

LOGIN RENEW VISA	
EMAIL <input type="text"/>	
PASSWORD <input type="text"/>	LOGIN <input type="text"/>

RENEW VISA		
REGISTRATION NUMER <input type="text"/>	DATE BIRTH <input type="text"/>	PASSPORT <input type="text"/>
IRP EXPIRY DATE <input type="text"/>	NATIONALITY <input type="text"/>	PPERMISSION TYPE <input type="text"/>
EMAIL <input type="text"/>	PHONE <input type="text"/>	
PASSWORD <input type="text"/>	ADDRESS <input type="text"/>	NEXT <input type="text"/>
NOTE: DETAILS WERE PREVIOUSLY SAVED THAT CANNOT BE EDITED LIKE FULL NAME, DATE BIRTH...		

SUPPORTING DOCUMENTS		
PASSPORT <input type="text"/>	ENROLLMENT LETTER <input type="text"/>	OTHER (MAYBE) <input type="text"/>
IRP CARD <input type="text"/>	LAST SCHOOL <input type="text"/>	SUBMIT <input type="text"/>
RECEIPT <input type="text"/>	INSURANCE <input type="text"/>	

The figure displays three wireframe prototypes for the International student immigration APP.

**Top Left Prototype: SUPPORTING DOCUMENTS**

PASSPORT <input type="text"/>	ENROLLMENT LETTER <input type="text"/>	BANK ST <input type="text"/>
SIGNATURE <input type="text"/>	RECEIPT <input type="text"/>	SUBMIT <input type="button"/>
PHOTO <input type="text"/>	INSURANCE <input type="text"/>	

**Top Right Prototype: NEW USER**

NAME <input type="text"/>	DATE BIRTH <input type="text"/>	PASSPORT <input type="text"/>
SURNAME <input type="text"/>	NATIONALITY <input type="text"/>	PPERMISSION TYPE <input type="text"/>
EMAIL <input type="text"/>	PHONE <input type="text"/>	NEXT <input type="button"/>
PASSWORD <input type="text"/>	ADDRESS <input type="text"/>	

**Bottom Prototype: ADMIN BASEDATA**

ALL INFO NEW USER AND RENEW, THIS PART WILL HELP US TO VERIFY THAT THE INFORMATION WAS SAVED

Figure 1. Prototype of the International student immigration APP.

## 2.1. Technologies used

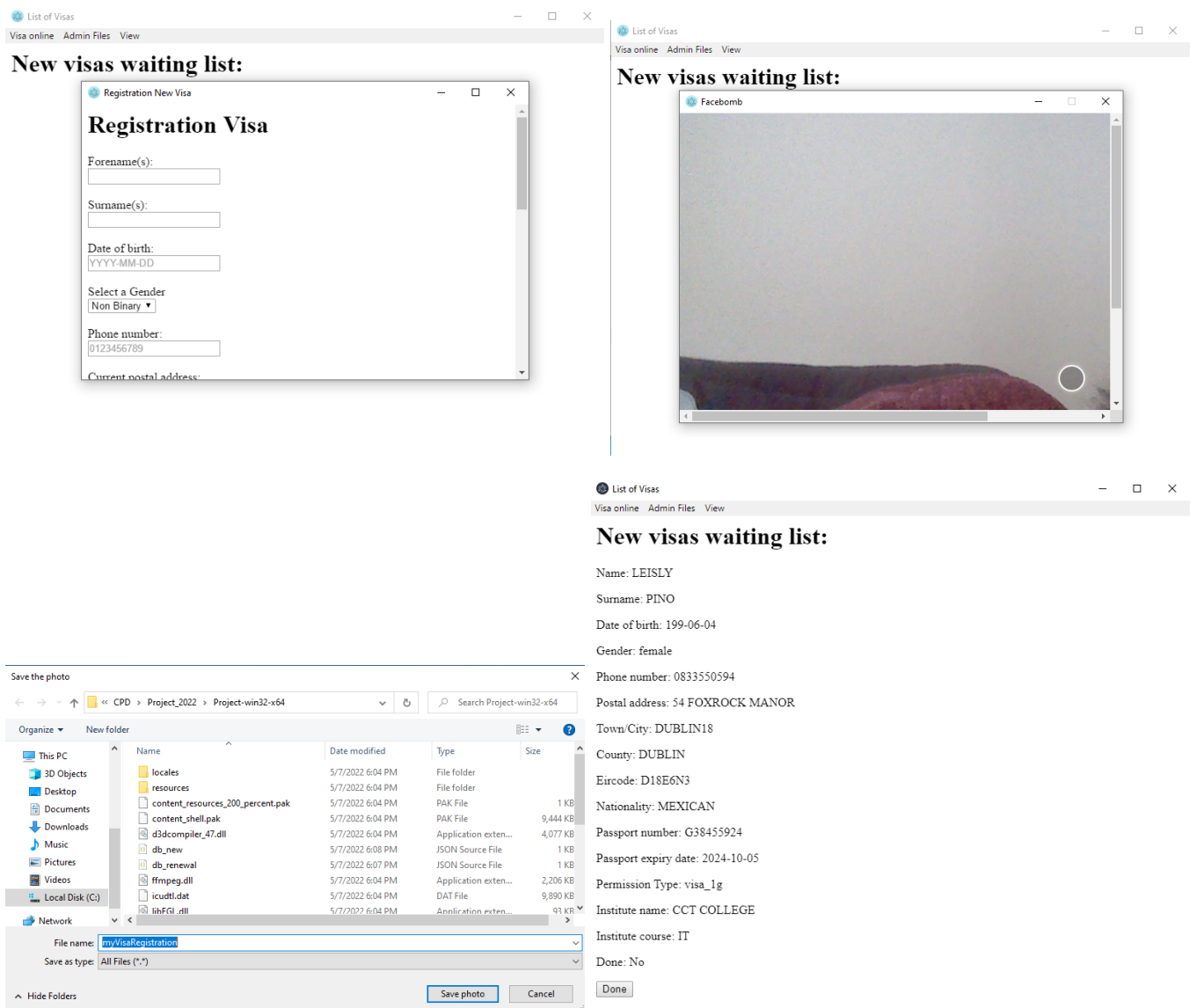
The technologies used to develop the cross-platform desktop app were basically HTML, CSS, Node.js, JavaScript language along with supporting technologies and Electron framework which are described by the subsections below.

- **HTML:** It was used to create the web forms, which provide the functionality to get the student to interact with the application, presenting them the page where they will register themselves and log into the app and allow them to upload their documents later on. The HTML was assisted by the Cascading Style Sheets (CSS) technology, which styled the web forms and by the JavaScript language which was used to design how the app behaves.
- **CSS:** It was used to style the HTML web forms.
- **Node.js:** It is defined by its official website (© OpenJS Foundation) as a JavaScript runtime built on Chrome's V8 JavaScript engine, which is Google's open source high-performance JavaScript and WebAssembly engine, written in C++ (Bynens). In short what that means is that Node.js is a platform where network applications can be quickly built and scaled easily. It is commonly referred to as a programming framework which facilitates the development of server side applications in JavaScript and it powers off developers to build cross-platform desktop apps even if they are not experienced ones. Two of the major frameworks for

developing a desktop app in the Node.js ecosystem are NW.js and Electron. For this project the Electron framework was chosen

- **Framework Electron:** The framework Electron was used for shipping the app to run on the Windows, Linux and Mac OS platforms from the same codebase. Another advantage from using the Electron framework is that the configuration of the app window's width and height in NW.js.
- **Database:** The database was created as a file which saves all the data about the user and works on the Json library. Basically this will generate a document which stores all the data supplied by the user.

This application was developed in Electron and the result was the following:



## References

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