

# Criterion B: Analysis

## **Proposed solution**

Mr Sanjeev and I considered the following options which included creation of:

- A notice board
- An email distribution list
- Newsletters
- A WhatsApp group
- A Calendar
- A Website
- A Google drive space with all resources
- A Mobile application (An App)

After discussing the pros and cons of the various solutions, Mr Sanjeev and I chose to create a mobile application.

## **Requirements specification**

### **IT System requirements**

#### **Hardware**

- Macintosh laptop to develop the app
- External 1 TB hard drive for backup
- iPhone 11 Pro for testing and usage
- iPad to design the logo
- Stylus to sketch the logo

## **Software**

- MacOS: To use Xcode
- Adobe Photoshop: To edit pictures
- Notepad: To code/make notes
- Xcode: To develop and code the app
- Google forms: To create a solution for residents to join the EcoWarrior team
- Procreate: To create the logo
- Browser stack: To test app by using the iOS simulator
- Chrome web browser: To use Browser stack website and cloud storage.

## **Network**

Broadband connection - for access to the internet and websites required for the app.

## **System interaction**

- Xcode and Procreate was already installed on my devices
- Adobe photoshop had to be installed
- External hard drive compatibility check with my laptop and backing up the swift code onto an external hard drive.

## **Input requirements**

- Image files in .jpg format for respective sections of the app will be provided by Mr. Kumar
- Text for all sections of the app will be provided by Mr. Kumar
- URL links ( social media, google forms etc. ) will be provided by Mr. Kumar

## **Output requirements**

- Consistent screen layout - colour scheme, font size and styles.
- Specific screens and sub sections to be designed including
  - Home page
  - About us
  - Meetings
  - Events
  - Projects
  - Products
  - Services
  - Join our team
  - Contact us
- Display of lines and labels
- Specific placement of images and text on the screens of the app
- Ensure certain pictures, button and icons are clickable / linked to external sources

## **Processing**

- Click on menu bar items to navigate through the app
- Click on social media icons to navigate through EcoWarriors social media accounts
- Click on buttons or pictures to view details about a product, service etcetera
- Click on “join the team” to view the google form
- Press log in to see if password was rightly or wrongly inputted

## **Security**

- A passcode has to be entered before one can access the app. This prevents unauthorised users from using the app and get access to confidential information.
- If the client feels the passcode has been leaked, it can be changed by the client.
- While entering the password, it will not be visible on the log in page
- When there is a change in code backup of it will be taken regularly on external hard drive and cloud which will only be accessed through a password
- The code to change the password will only be kept with Mr. Sanjeev and myself
- The app will only be able to be installed on specific devices manually from the EcoWarriors office

## **Specific performance criteria to test functionality**

- Secure the app against unwanted users
- Use consistent use of green colour
- Design a logo and put it on each page of the app
- Provide an easy, organised and official way for residents to join the EcoWarriors team
- Provide a way for residents to contact the EcoWarriors team
- Create a customised calendar to view future, present and past events and meetings.
- Create a way to view products details

## **Justification of chosen solution**

Website and app were solutions that met all client input and output requirements and solved all problems faced by the EcoWarriors.

Reasons why an app was chosen over a website are, Vipul has 644 apartments and a population of 2000+ residents. Over 89% residents over the age of 10 own a smart phone (from which 87% own an IOS device), including senior citizens, in comparison just 59% residents having a laptop/desktop.

Further a survey was conducted amongst all smart phone holders asking which solution they would prefer, 98% responded with a mobile application. VG residents are likely to make efficient use of an app compared to a website because of ease of accessibility and use, likelihood of more screen time on an app, faster response time and user friendliness. Further, being a resident at Vipul, I know that the 4G and internet connection is not strong, therefore most content on an app can be accessed offline.

I am most skilled to develop an app so I will be able to add advanced and complex features in an app compared to other solutions. Mr. Kumar and I have apple products therefore my client's and my hardware and software is compatible with the IT solution. He would easily be able to download Xcode and update dates for meetings, products, services etcetera . Xcode is easier to work with as basic training is needed compared to website development softwares like Microsoft Front-page and Adobe dreamweaver. My client also had security concerns, so the app would be restricted by a password which can be changed anytime if the client is suspicious of a data breach. Furthermore, an IOS environment in generally is highly secure. Google forms where applicable has also been leveraged taking advantage of google cloud security features. Lastly, my client agreed to

provide all information and data to develop the solution conveniently through exchange of emails and online meetings.

Overall regardless of all advantages combined, Mr. Kumar, clearly stated in the interview that he would prefer an application over all of the solutions, hence fulfilling his wants is my top priority.

Word Count: 350