



# Product Document

*Care for you*

## Team Agile Port (TP03)

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## **1. Introduction:**

This document covers a brief overview of the product delivered, which could explain the business value and how it could benefit the target audience. In addition, it also provides the purpose of the website, the main functionalities of the website, the target audience, and the benefits they would get from this website. Also, this document provides data resources, potential risks, and security aspects of the website.

## **2. Overview of the Project:**

### **2.1. Project Objectives:**

Through this project, we aim to build a website based on open data, that will provide a list of bilingual childcare and early childhood language programs in Victoria. This will help our users, who are working immigrant parents, to bridge the communication gap that their children face at day-care and early school. It will also help guide the parents through the enrolment process and provide them with the information to help choose the best childcare for their child.

### **2.2. Target Audience:**

Our target audience is immigrant parents who are working full time and are not able to find time to devote to their child's linguistic learning program. It will also help parents who themselves have limited proficiency in the English language.

### **2.3. Challenges:**

According to the Australian Bureau of Statistics from the 2011 census it has been said that almost 67% of the recent arrivals to Australia spoke a language other than English at home. Further, only 43% of the recent arrivals reported that they spoke English well.

Therefore, a problem faced by many First-Generation Australians whose native language is not English is that they find it difficult to understand and speak English as a second language early on in their lives at school and day-care. Another challenge that is faced by immigrant parents is that they are not aware of the policies and procedures related to day-care in Victoria

### **2.4. Solution:**

The proposed solution is a website, wherein the immigrant parents can find day-care facilities in the area around them based on their native language.

The users will also be able to find all the related information with regards to childcare in Victoria and find news and articles about childcare and raising bilingual children. The parents will also be able to read reviews for the day-care of their interest, given by other parents.

### 3. Data Source Details:

Dataset Name	Functionality	Description
Early childhood language program participating services Jan 2020	Find day care nearby	This dataset is a Microsoft Excel document which consists of details about different child-care centres across Victoria and has details about the language which they teach other than English. We have wrangled the dataset according to the search functionality which we are working on, extracted and wrangled the address, suburb, and postcode columns, removed all null and duplicate values. We have also extracted the information regarding the day-care ratings on different parameters from the dataset.
Geocoding API	Show the location on map	We have used geocoding API from google to encode the address into geolocation formats. This will help us implement the map functionality. We will wrangle the data to extract the latitude and longitude for the centres from this geolocation data and then feed the latitude and longitude coordinates to Mapbox API to show the marker for the centres on the map.
gnews.io API	Real time news	We have used the “gnews.io” API for the news and articles on our home page. We will pass keywords to API to search for the articles and the results will be obtained in JSON which will then be displayed on the home page.
Google Places API	Locate the day care and get reviews of daycares	We have used the Google Places API to collect and display the reviews for day-care centres posted online by other parents. We pass the name and address of the day-care centres to the API and in response receive the reviews in a JSON format containing the information about the name of the person posting the review and the date and time as well.

#### 4. Security Aspects:

Security Aspects	Coverage
SQL Injection	Yes
Clickjacking	Yes
Cross Site Request Forgery (CSRF)	Yes
Transmission Security	Yes
Microsoft Azure Identity and access management	Yes
Django and Database backup	Yes

#### 5. Potential Risks:

Our current website has low-level risks. Firstly, as the childcare details which we have mentioned in the website are subject to change of their locations and contact information. Lastly, In the information page new rules and policies might be introduced every year and might not get updated on our website.

#### 6. Overview of Testing:

Before submitting the final handover of this website, several test scenarios have been considered. The testing contains unit testing, integrity testing. While system testing includes functional testing, user experience testing, and non-functional testing. The purpose of this testing is to ensure that the website works as expected. The following table lists types of testing, the number of testers, and the number of tests.

Testing Type	Functional Testing	Usability Testing
Number of Tests	16	4
Number of Testers	2	4

## **7. Resources Required:**

### **7.1 Hosting Resource:**

The website is hosted on Microsoft Azure, the server is Ubuntu 18.04 and Nginx and wSGI need to be installed. Besides, some packages are needed to run this django application.

The list of software and packages are:

- Python >=3.7
- Django >=3.1 (install command: pip install django)
- Requests (install command: pip install requests)

## **8. Future Development:**

Care For You provides a platform the Immigrants parents to find a bi-lingual child care nearby their location for the first generation australian kids. The current system although sufficient has the scope of improvements and hence the following points have been outlined:




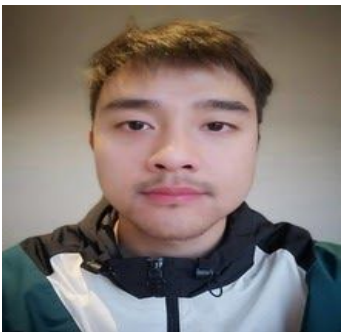
- Adding more childcare services and expanding it all over australia.
- User activity tracker and reminder for missed and future activities

## **9. Description of Maintenance and Support documentation:**

The maintenance document provides system application and detailed information on the website, including security and data sets details. For further development of the website, the document also provides support environments of equipment and software.

The support document provides details about the technical functionalities for supporting the website, which includes system setup, network architecture of the system, routine guidelines, restoration and security, data sources.

## 10.Team Description:

Photo	Name and Expertise	Skills	Contact info
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