Tools and Technology

Technology

To bring our application to fruition, we are going to need significant infrastructure. However, we can take advantage of cloud-based infrastructure as a service, which will be the most scalable and cost-effective way forward.

We will require a web server. The webserver we have decided to use Amazon Web Services (AWS) for this infrastructure with Elastic Compute Cloud (EC2). In addition, we will run the open-source Apache webserver with ubuntu 18.04, which we can also purchase as a service from AWS (AWS 2021, a).

We will require a Neural Machine Translation Application Programming interface (API) for the translation functionality of our application. The project will move forward with the Amazon Translation service, as this offers us a scalable solution and good value for money (AWS 2021, b).

The application will require a database to store customer data such as personal details, billing information, and restaurant menus. We have chosen to use Oracle’s MySQL cloud-based service. MySQL comes in as a lower-cost option than the Amazon RDS and is a good fit for our business model (MySQL 2021).

Coding

We will require coding expertise to allow the application to behave as we would require it to build the application. Therefore, the following coding will be required:

We require Hypertext Markup Language (HTML), cascading style sheets (CSS), and JavaScript for the company’s website (Cox 2020). Java will be used to code the android application (TheZachBales n.d.). Xcode will be required to create an iPhone version of the application (ching 2019).

For the back end, we will conduct server-side scripting in python. For the database, we will use structured query language (SQL) to store and receive large amounts of information. The APIs will be bought mainly as a service from amazon. This will include slashDB for our database API (AWS 2021, c). knowledge of the JSON programming language will be required to ensure that our applications work together.

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MySQL 2021, MySQL database services, MySQL viewed 14 May 2021 <https://www.mysql.com/cloud/>

Cox, K L 2020, Web Design 101: How HTML, CSS, and JavaScript Work, Hubspot, viewed 5 May 2021, <https://blog.hubspot.com/marketing/web-design-html-css-javascript#:~:text=HTML%2C%20CSS%2C%20%26%20JavaScript%3A,the%20behavior%20of%20different%20elements>

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TheZachBales n.d., How to create and android app with android studio, instructable circuits, viewed 9 April 2021, <https://www.instructables.com/How-To-Create-An-Android-App-With-Android-Studio/>