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| ttp://acems.org.au/acems_wp/wp-content/uploads/2015/09/QUT_Logo_2Lines_CMYK.jpg | **IT Capstone**  **IFB398 Assessment 1b Skill Development Plan** |

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| **Student Number:** | **N8923108** |
| **Group Number:** | **GROUP 14** |
| **Tutor:** | **Jimmy** |

**Skill to be acquired or improved**

I do not have sufficient programming skills and experiences for web-based services. Therefore, I need to acquire a good knowledge of Python to create and manage database system for successful our project. Furthermore, I will study the basics of other programming languages such as HTML, SQL, JavaScript, CSS and so on to improve skill.

I can improve my python skill by utilising Django which is a high-level python web framework to complete the project at a high standard. Django can provide various functions for web development. It can also reduce a lot of hassles of web development.

**Relevance to the project, and to your role within the project**

Python is the most useful programming language to succeed the project as python can easily address many requested elements from the industry partner. Furthermore, Django is the best web framework to develop web-based services.

The project requires the construction of a complicated database system, but Python can utilise Django to control and create the database more easily than other web programming languages.

My main role for this project is a web developer for application development, with more focus on database systems. I will concentrate on constructing the database system by utilising Python and Django. I will do up a draft for the database table structure to help with constructing the real database system later on. I will also participate in application design and the development of other functions.

I will assist in designing our project plan and helping my team members study Python before we start developing our application.

**Plan to acquire this skill**

*In this question please outline your plan in dot points, including the estimated time required (in hours per week).*

There are three steps to acquire this skill by utilising E-book and online materials.

(E-book: A Byte of Python / Online material: YouTube & Blog)

**★ Study the basics of Python (Review)**

* Basic & Operators and Expressions & Control flow (2.5 hours, Week1)
* Modules & Data Structures & Problem solving (2.5 hours, Week1)
* Object Oriented Programming & Input and Output (2.5 hours, Week2)
* Standard Library & Exceptions & More function (2.5 hours, Week2)

**★ Study Python Data**

* Python DB API & MySQL Quarry and DML (2.5 hours, Week3)
* SQLite & JSON data (2.5 hours, Week3)
* File Data & CSV file (2.5 hours, Week3)

**★ Study Django (Develop Simple Web)**

* Start Django & Model & Template (2.5 hours, Week4)
* MVC Pattern & Add Function (2.5 hours, Week4)
* Page not Found (404) & Advanced Template & AWS (2.5 hours, Week5)
* Review (2.5 hours, Week5)

**Plan to demonstrate that you have acquired this skill**

I will provide screenshot evidences by capturing programming codes and results of output when I finish each topic on the basics of Python. I will also show the progress of python programming exercises in the Codecademy by capturing screenshots.

After I study the part on Python database, I will show the completed database table and structure to demonstrate that I have learnt the skill. After I have completed the simple web application, I will demonstrate my skill by showing the completed simple web application.

My repository in GitHub is also one way to demonstrate that I have acquired this skill.