WARWICK BUSINESS SCHOOL

Masters Programmes

Assignment Cover Sheet

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Reflective Report, Programming Solution for Enterprises

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Reflective Report

Use python programming to create a room booking system where students can view the details of the specified room, book the room if available and search room based on a given criteria such as time slots, capacity, or equipment. This report gives a gist on how I came up with a solution to the question mentioned above.

My intention from the get-go was to create a Graphical User Interface (GUI) for users to work on such that it will be easier for them to understand the booking system and navigate through the program. Tkinter is the standard GUI library for python. Python when combined with Tkinter provides a fast and easy way to create GUI applications. Understanding and working with Tkinter was easy since the modules gave a clear understanding on python variables, data types, functions, classes, iterations, objects, syntaxes, conditional statements, operators, Logical statements, File operations, etc.

Every week was a combination of a lecture and a seminar. Lectures were theory-based teaching while seminars were practical based. Seminars gave a clear understanding on what was taught during the lectures. All the lectures and seminars have helped me succeed in completing the python programming project. The project starts off with importing Tkinter. Tkinter is used for creating the window. The buttons, Labels, Label Frame and Text field were created using the Tkinter. Since the program contains many levels to it, I had to create a structure for the program flow. It can be seen as the algorithm for the program.

Once the algorithm was made, the programming started off with creating the Tkinter window. Created the user interface with buttons, labels, and text areas. This can be seen as the front end of the program where the user interacts with the program. The back end is where the program lies. The back end is a combination of python, SQL and Tkinter. Python was used for the interconnection of elements in the frontend, SQL is used for connecting the program with the database and Tkinter for the frontend of the program.

I wanted the frontend to simple and effective so that users can easily understand the workflow of the application. Since there are a lot of users, everyone might not be thinking similarly. Some might want to search rooms by capacity, some might want to search by availability and some by time. The program has the ability to include what different users might want. In the future, the I want to add more features into the application depending on the use case of the users. Features can include a column of content where the application displays the history of usage of the room. This can help in users to understand the various use cases of the rooms

available on campus. This can be done by having a collaboration with various other departments on campus. As you can see, this application is using various concepts like agile thinking, open innovation, and others through the python program. The concept and program have a huge potential through which it can grow and help the users across the campus.

The various buttons used in the program triggers various functions. These functions can be called and can be executed from anywhere in the program. I would say the program is modular since each function is separate from each other and can help in easily understanding the program. Even if you find an error in the program, the modular design of the project helps the developer from complexity. An error in function is not going to affect the program as a whole due to the modular architecture of the program. Comments is an important tool that I have used in the program for any developer to easily understand a specific line or code.

The program is based on my learning experience of the course Programming in Solutions for Enterprises. The concepts of Python and SQL were taught to me through the lectures and seminars on campus. Modularity, Open Innovation, Agile thinking were some of the concepts that I came through during the lectures and seminars on campus.

In conclusion, the room booking system was successfully created. Python was an easy language to understand and implement. Tkinter was a module one could easily implement in the program. The concepts were understood much more and in depth through the implementation of the program and its concepts. A combination of python, SQL and Tkinter produced the results of the program. On top of the combination, an implementation of concepts such as modularity, Open innovation and agile thinking has helped me understand more and in depth the concepts taught in this module.