# Example of code essay

**Design** 



### Reflection and integration

Computer programming is one of the complex yet essential courses in the information technology career. The course is delivered in the most understandable and comprehensive methods involving both practical and theory lessons. In this course, I have had a deeper understanding and knowledge of object oriented programming as a paradigm of computer programming. The course entailed an elaboration of basic programming techniques, programming methods and program design and analysis tools such as flowcharts, data flow diagrams, algorithms and pseudo codes. In the design of a program the first step is identification of the problem to be solved then developing a pseudo code which is basically a set of organized steps for solving the problem. The pseudo is then converted to a flowchart which diagrammatically presents the logical steps. This facilitates the coding process that entails deriving a solution through a set of codes executed to solve the problem.

Python programming language is one of the general purpose programming languages that allows readability and simplifies programming codes by allowing programmers to express complex problems in simple and few codes. As learned in the course, the language utilizes several data types, operators and expressions. Some of the in-built data types used in python include; str which a data type representing data of string type, list for mutable lists containing mixed types, tuple for immutable lists and may contain mixed types, int for integer type values, Float and complex among others. Simple programs and codes are written, debugged, compiled and executed using the python IDLE editor. The data constraints in Python are

not checked during compilation but are verified when used with expressions and operators. Additionally user defined data types are allowed in Python, programmers can define their data types using classes. The operators and expressions determines how the program will manipulate the set of data constraints supplied by the user. An identifier is used to identify variables, functions, classes and modules in a program.

def functionname( parameters ):

## " function\_docstring"

function\_suite

return [expression]

The parameters are supplied by the user and passed to the function, executed and a value is returned based on the input.

Functions are invoked in a program by using its name and supplying the parameters to be passed. Classes on the other hand are defined using the following syntax;

# 'Optional class documentation string'

class\_suite

In conclusion, the course module equipped me with the adequate knowledge and skills in object oriented programming. To understand this more, learning python programming language offered a platform for practically experiencing the advantages of object oriented programming.

### Reference

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