Python Assignment

Module – 1 (SDLC)

1. What is Software?

"***Software is a set of programs (sequence of instructions) that allows the users to perform a well-defined function or some specified task.***"

Software is responsible for directing all computer-related devices and instructing them regarding what and how the task is to be performed. However, the software is made up of binary language (composed of ones and zeros), and for a programmer writing the binary code would be a slow and tedious task. Therefore, software programmers write the software program in various human-readable languages such as Java, Python, C#, etc. and later use the source code.

➢ Types of Software

System Software

Application Software**.**

System Software

System software **is a computer program that helps the user to run computer hardware or software and manages the interaction between them**. Essentially, it is software that **constantly runs in the computer background, maintaining the computer hardware and computer's basic functionalities, including the operating system, utility software, and interface**.

1. Operating System

- o Microsoft Windows
- o Apple's iOS
- o Apple's MacOS
- o Android

- CentOS
- Linus
- Ubuntu
- Unix

2. Device Drivers

- BIOS (Basic Input/Output System) Device Driver
- USB (Universal Serial Bus) Drivers
- Motherboard Drivers
- Display Drivers
- Printer Drivers
- Sound Card Driver
- ROM (Read-only memory) Drivers
- VGA (Video Graphic Array) Drivers

3. Firmware

- Computer Peripherals
- Consumer Appliances
- Embedded Systems
- UEFI (United Extensible Firmware Interface)
- BIOS (Basic Input/Output System)

4. Utility

- Norton and McAfee Antivirus
- WinRAR
- Directory Opus
- Disk defragmenter
- WinZip
- Windows File Explorer
- Razer Cortex

Application Software

"Application programs or software applications are end-user computer programs developed primarily to provide spcific functionality to the user."

The applications programs assist the user in accomplishing numerous tasks such as doing **online research, completing notes, designing graphics, managing the finances, watching a movie, writing documents, playing games, and many more**.

a. Word Processors
b. Database Software
c. Multimedia Software
d. Web Browsers

2. What are the types of Applications?

Mobile Applications
Web Applications
Desktop Applications
Enterprise Applications
Gaming Applications
Educational Applications
Healthcare Applications
Entertainment Applications

3. What is programing?

Programming is an exercise or practice that boost our logical thinking and improves a problem-solving skill. It teaches us how to accomplish a task with the help of a computer program or software. Therefore, in simple terms, **programming** is a task to implement a solution to a problem in the form of computer language.

We can also define the term **programming** as it is the process that models or structure the set of instructions that instruct the machine **how to perform a task** and **what to perform.** It can be done using a variety of programming languages such as **C**, **C++**, **C#**, **Python**, **Java**, etc.

4. What is Python?

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics developed by Guido van Rossum. It was originally released in 1991. Designed to be easy as well as fun, the name "Python" is a nod to the British comedy group Monty Python.