**Python Assignment**

**Module – 1 (SDLC)**

**1). What is software?**

**Software**, instructions that tell a computer what to do. Software [comprises](https://www.merriam-webster.com/dictionary/comprises) the entire set of programs, procedures, and routines associated with the operation of a [computer system](https://www.britannica.com/technology/computer).  A set of instructions that directs a computer’s hardware to perform a task is called a software program.

**The two main types of software are**

1. [System software](https://www.britannica.com/technology/system-software)
2. Application software.

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.

**2). What are types of application?**

Applications are pieces of software that enable a user to perform certain tasks on a computer or mobile device. All computers and mobile devices contain preloaded or built-in applications, such as a web browser, calculator and media player.

**There are 2 types of applications:**

1. Standalone Apps
2. Web Apps

**STANDALONE APPS:**

To work with any application, if you install that software into your computer then it is called a standalone application. For Example, if you want to play some videos, generally we are using VLC PLAYER. To create a documentation or PowerPoint presentation we go for MS office. To browse something from the internet we are using Mozilla Firefox or Google Chrome. All these are standalone applications.

##### ****Web Apps:****

Without installing any software, we are working with the software called a web application. Regularly we are using gmail.com, facebook.com, YouTube, and Google.com; we don’t need to install these applications before using them. It is independent of the operating system that is not dependent on a particular operating system. Examples: Facebook, Gmail, IRCTC.

**3). What is programming?**

A computer program consists of code that is executed on a computer to perform particular tasks. This code is written by programmers.

Programming is the process of giving machines a set of instructions that describe how a program should be carried out. The purpose of programming is to find a sequence of instructions that will automate the performance of a task on a [computer](https://en.wikipedia.org/wiki/Computer), often for solving a given problem. Proficient programming thus usually requires expertise in several different subjects, including knowledge of the [application domain](https://en.wikipedia.org/wiki/Domain_(software_engineering)), specialized algorithms, and formal [logic](https://en.wikipedia.org/wiki/Logic).

**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. Python is programming language use in a website development, software development, task automation, data analysis and data visualisation.

Python is one of the easiest programming languages to learn, largely due to its object-oriented nature and simple syntax.

The python interpreter and the extensive standard library are available in source or binary form without charge for all major platforms, and can be freely distributed.