**Python Essentials**

**Assignment – Day 1**

Q1) What is python? What are the ways to install python in your PC?

Ans:

Python is an interpreted, interactive, object-oriented, general purpose programming language. It incorporates modules, exceptions, dynamic typing, very high-level dynamic data types, dynamic binding, and classes. It is a universal language found on variety of applications due to its ubiquity and ability to run on every system architecture. Python has an easy syntax, requires less amount of coding, and has many libraries.

It was first developed in the late 1980’s by Guido van Rossum and has advanced as an open source programming language. This programming language is highly interactive and known for its “strong opinions” around specific syntax (including whitespace). The language has a mature ecosystem of both free and proprietary tools including Integrated development environments (IDEs), linters and frameworks.

The ways to install python are listed down below:

Python comes installed on Macs and with Linux, but you will need to install it yourself if you are using Windows. If you are using Mac or a Linux computer, you can install the latest version to ensure that you have the access to latest features.

WINDOWS

1. Download the Python3 Installer(32 bit or 64 bit according to the system processor)
2. Run the installer
3. Also, you can download Anaconda for Windows
4. Also, you can install python using a package manager for Windows

Q2) What are the Code Environments? and its Types.

Ans: A code environment is a platform that consists of equipment that can be used for scripting codes, execution, developing, or testing the software.  
Environments are independent i.e. you can install different packages or different versions of packages in different environments without interacting with each other.

There are 3 types of environments which are listed down below:  
  
a) Integrated Development Environment  
All the essential tools are installed for automating the programmer's tasks like file management, selections, debug, integrations, and deployments.  
e.g. PyCharm, Spyder, etc.,.

b) Notebook Environment:  
Ex in Jupyter Notebook we give an input and get the output of the code. Run the input with shift + Enter  
We can download files as .py and in other formats.

c)Text Editors:  
In this programmer can write and modify the code only. These are general text editors.  
e.g. Notepad, Visual Studio Code etc., ...