Assignment -29th Jan 2023

-Sagarika Raina

1.Who developed Python Programming Language?

Guido van Rossum

2.Which type of programming does Python support?

Object-oriented programming (OOPS)

3.Is Python case sensitive when dealing with identifiers?

Yes

4.What is the current extension of Python files?

.py

5.Is Python code compiled or interpreted?

Python is an interpreted language in which source code is executed line by line, instead of being translated into machine code and executed directly.

6.Name a few blocks of code used to define in Python?

Class,def,yield,return

7.State a character used to give single line comments in Python?

#

8.Mention functions which can help us to find version of python that we are currently working on?

Using python_version() function
Using sys.version method
Using Python -V command

9.Python supports the creation of anonymous functions at runtime, using construct called ?

Lambda function: It can take any number of arguments, but can only have one expression.

10.What does pip stand for in Python?

Pip Installs Packages is a package manager used to install and manage packages and libraries for use in Python projects.

11.Mention few inbuilt functions in Python?

print(),len(),max(),min(),count(),append(),pop() etc

12.What is the maximum possible length of an identifier in Python?

There is no theoretical limit to the length of an identifier in Python.However there is a practical limit of **79 characters** suggested for proper code readability.

13.What are the benefits of using Python?

1.Easy to learn-simple,clean syntax
2.Cross platform support-works on multiple OS like Windows,macOS,Linux etc
3.Dynamic typing-type of variable can change at runtime making code flexible and concise.
4.Huge libraries and packages available- helps in performing various operation and provides various functionalities. eg.string manipulation,data structures etc.
5.Interoperability: Python can be easily integrated with other programming languages and can be used to create scripts that automate tasks in other languages.

14.How is memory managed in Python?

The Python memory manager handles the allocation of memory for Python objects and data structures, as well as the deallocation of memory when objects are no longer being used. Python uses a **garbage collector** to automatically identify and reclaim unused memory. The garbage collector keeps track of all objects in memory and periodically frees up memory occupied by objects that are no longer in use

15.How to install Python on Windows and set path variables?

To install Python on Windows and set the path variables, follow these steps:
1.Download the latest version of Python for Windows from the official Python website (https://www.python.org/downloads/).
2.Run the installation wizard and follow the instructions to complete the installation process.
3.Open the Start menu and search for "Environment Variables". Click on "Edit the system environment variables".
4.Click on the "Environment Variables" button to open the Environment Variables dialog box.
5.Scroll down and find the "Path" variable under "System Variables". Click on "Edit" to modify the Path variable.
6.Click on "New" and add the path to the Python installation directory. For example, if Python was installed to C:\Python37, you would add C:\Python37 to the Path variable.
7.Click OK to save the changes.
8.Restart your command prompt for the changes to take effect.

16.Is indentation required in Python?

Yes,proper indentation is important, as it affects the interpretation of the code.Inconsistent or incorrect indentation can result in syntax errors and unexpected behavior.