Day One: Assignment

Date of Performance: 12-03-2021

Questions :

About Python :

- **Describe about Python and its history.**

Answer:

The earliest version of Python was invented by Guido van Rossum as a successor to the ABC programming language in 1994. Python was named after a BBC comedy series.

- **Why is python called a high level, dynamic and interpreted language?**
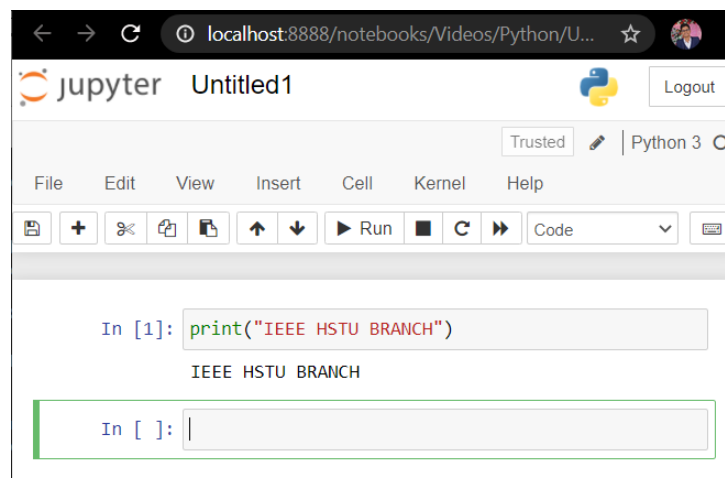
Answer:

Python is a human readable, user friendly programming language. It is closely related to the human language and not machine based. So it is called **high level language.**

We don't need to declare any data type before assigning the value of any variable. It is automated. So we call Python a **dynamic** language.

Interpreter can be called the grammer of Python language. It checks the program and find mistakes.

- **Write a python program to display "IEEE HSTU BRANCH"**

Answer:

Installation :

- **Which Python version you installed ?**

Answer : I have installed Python version 3.9.2

- **Describe how to install a package(Ex: Jupyter Notebook) in Python via Pip.**

Answer: To install a package via pip, we have to search in google "PyPi" adding the package name. For Jupyter Notebook we need to search "PyPi Jupyter Notebook". Then we will find a page of PyPi (pypi.org). Entering that page we will find a text which we have to copy and paste in the command prompt. Then the package will install automatically.

- **Describe why use comments in Python code with an example?**

Answer: We use comments to give any information about the program. To put a comment we need to use hash (#) before that comment. For example:

```
In [6]: var_1 = "Arpan" # This is a String
        Var_2 = 25       # This is an Intiger
```

Keywords and Identifier:

- **List all python reserved words(keyword) and describe the function of any 15 keywords?**

Answer:

False	Await	Else	Import	Pass	None	Break
Except	In	Raise	True	Class	Finally	Is

Return	And	Continue	For	Lambda	Try	As
Def	From	Nonlocal	While	Assert	Del	Global
Not	With	Async	Elif	If	Or	Yield

Function of 15 keywords:

None   >   Absence of a value or a null value

Assert   >   Debugging Purposes

Async   >   Write concurrent code in Python

Class   >   Define a new user-defined class in Python

Def   >   Define a user-defined function

Del   >   Delete the reference to an object

Except   >   Exceptions

Finally   >   Close up resources or file streams

For   >   Looping

Import   >   Import modules

Global   >   Declaring that the function is global

In   >   Test if a sequence contains a value

Is   >   Testing object identity

Lambda >   Create an anonymous function

Pass   >   Null statement

- **Write 3 identifier rules.**

Answer :

1. Keywords can not be used as identifiers

2. We can not use special symbols like !, @, #, $, % in our identifier.

3. An identifier can be of any length.

Variable:

- **What is variable? How to assign a value in a variable with example?**

Answer: A Python variable is a container or reserved memory location where we can store values. To assign a value in a variable we must put the " = " sign. We have to write the variable name with the identifier rules, then " = " sign. After that we have to write the value of that variable. To use a string as a value of variable we have to confine the value in quotation mark (" ").

For Example :

```
In [7]: var_1 = "Arpan"
        Var_2 = 25
        var_3 = 10.75
```

- **From the list below indicates whether the variable declaration follows the identifier rules Yes or NO? If 'No' mention the reason.**

Answer:

var1	= 10	Yes
varvar1	== 10	No – We have to use only one " = " to assign value
varvar2	= 10,10	Yes
2var	= 10	No – A variable cannot start with a digit
2var	= 10,10	No – A variable cannot start with a digit
Var_	= 10	Yes
_var	= 10.5	Yes
Var_	= "IEEE"	Yes
Var__	= HSTU	No – We have to put quotation mark (" ") in a string
var@number	=10.5	No – A variable cannot contain special symbols like @
As	= 10	Yes
as	= 10	No – Keywords can't be a variable
.hgfjhjhgkjdfhsfkldj	=10000000	No – A variable cannot contain special symbols like " . "