

## **Variables in Python**

- Variables are used to store information to be referenced and manipulated in a computer program. They also provide a way of labeling data with a descriptive name, so our programs can be understood more clearly by the reader and ourselves.
- It is helpful to think of variables as containers that hold information.
- Their sole purpose is to label and store data in memory.
- This data can then be used throughout our program.
- As Python is Dynamically typed language there is no need to use data types explicitly while creating the variable.
- Depends on the value that we initialise interpreter decides its data type and allocates (memory accordingly.)

Consider below application which demonstrates different ways in which we can create variables.

```
print("---- Marvellous Infosystems by Piyush Khairnar-----")
print("Demonstration of Variables in Python")
no = 11
                                        # Considered as integer
name = "Marvellous Infosystems"
                                        # Considered as String
fvalue = 3.14
                                         # Considered as float
cvalue = 10 + 5i
                                        #considered as Complex number
                                         # considered as scintific number where E
evalue = 7E4
indicates power of 10
bigvalue = 12345678912
print(no)
print("String is " +name)
print(fvalue)
print(cvalue)
print(evalue)
print(bigvalue)
# We can use type function to get data type of variable
print(type(no))
print(type(name))
```



```
print(type(fvalue))
print(type(cvalue))
print(type(evalue))
print(type(bigvalue))
```

## **Output of Above application**

```
Python_Programs — -bash — 79×24
|MacBook-Pro-de-MARVELLOUS: Python_Programs marvellous $ python Variables.py
---- Marvellous Infosystems by Piyush Khairnar----
Demonstration of Variables in Python
String is Marvellous Infosystems
3.14
(10+5j)
70000.0
12345678912
<type 'int' >
<type 'str'>
<type 'float'>
<type 'complex'>
<type 'float'>
<type 'int' >
MacBook-Pro-de-MARVELLOUS: Python_Programs marvellous$
```

