



## Printing a Message

For printing a message in python we use a builtin function called `print()` function in which we pass the string in the arguments during calling of the `print()` function in your python program. Just take an example of the string: "Hello Bhaiyo!". As we know that, string is enclosed with double quotation mark.

```
In [4]: print("Hello Bhaiyo")
```

Hello Bhaiyo

## Variables

There is a concept of variable comes in programming. The variable is a container that contains value of any data type whether it is string, integer, boolean, list, tuple and so on. The variable is the name of the memory location where the value of the variable is stored. There is no way to declare variable in python. The variable is created in python when you assign value to the variable.

## Rules for Writing Name of Variables

1. Name of the variable starts with starts with alphabets and underscore.
2. Do not start name of the variables with numbers.
3. Keywords is not considered as the name of the variable.
4. Name of the variable is either alphabetic or alphanumeric.

## Assigning Value to the Variables

As we know that, when we assign value to the variable then variable is created. First we write name of the variable then we use assignment operator "=" equals to and after that we assign whatever type of value we want to assign like integer value. To assign multiple values to multiple variables respectively. Number of variable and numbers of values assigned are both equal separated by comma.

```
In [24]: #Assigning value to variable
num = 5
word = "Ram"
isGood = False
#Assigning multivalue to multivariable
num1, num2, num3 = 1,3,5
```

I always recommend to write the name of the variable in camel case method or snake case method. In camel case method if we have the name of variables

contains more than one word then we write first letter of the first word in small letter and then first letter of other words after first word in capital letter. In snake case we underscore between the words of the variables.

```
In [33]: #camel case style
nameOfTheTopper = "Your Name"
#snake case style
name_of_the_topper = "Your Name"
```

## Comments in Python

Here, there is one more concept about the comment which you must know. The comment starts with “#” sign as it comment only single line. The interpreter ignores the comment line from the code. The comment is mainly used to describe the code to make reader or coder understand. There is one more type of comment is multiline comment which is enclosed with triple quotation marks. [“”” Hi “””]

```
In [39]: #single line comment
```

```
In [ ]: #Multiline Comment
"""
Hello
Guys
"""
```

## Printing Values of Variables

To print or output the value of the variable on output screen. You need print() function which is a builtin function in python. In print() function during calling you have to pass the name of the variable as an argument of the print() function. The print() function print the value of the variable it contains.

```
In [31]: #Printing value to variable
print(num)
print(word)
print(isGood)
print(num1)
print(num2)
print(num3)
```

```
5
Ram
False
1
3
5
```

# Datatypes and Its Typecasting

Here, I am using only primitive data types are as follows as:

1. Integer is a type of datatype that contains only numbers type value without any decimal points. To typecast any value in integer you should use `int()` function in python.
2. Float is a type of datatype that contains only numbers with decimal values. To typecast any value in float you should use `float()` function in python.
3. String is a type of datatype that contains only alphabetic and alphanumeric values. To type cast any value in string you should use `str()` function in python.
4. Boolean is a type of datatype that contains only two values "True" and "False". To typecast any value in boolean you should use `bool()` function in python.

```
In [67]: x=str(56)
          print(type(x))
          y=int(8.42)
          print(type(y))
          z=float(6)
          print(type(z))
```

```
<class 'str'>
<class 'int'>
<class 'float'>
```

## Input Value of Variables

To input value of the variable on output screen. You need to use `input()` builtin function in python. In `input()` function, you just have to pass the displayed text in the screen during input in the argument of the `input()` function. By default, it takes any type of data in the form of string so if you want to input other type of data like integer, float, double then you have to typecast the `input()` function.

```
In [46]: #By Default input()
          x=input("Number:")
          type(x)
```

```
Out[46]: str
```

```
In [60]: #By Typecasting
          xInt=int(input("Integer:"))
          print(type(xInt))
          yFloat=float(input("Float:"))
```

```
print(type(yFloat))
```

```
<class 'int'>
```

```
<class 'float'>
```

Here, you have to use `int()` function to typecast the input data. First of all you have to pass `input()` function inside the `int()` function to get input in the form of integer datatype same in case of float we use `float()` function and in case of string you do not need to use any function. `str()` function is used to typecast any value in string but not use for `input()` function.