The print() function is used to output data to the standard output device, typically the console.

In [ ]:
```
print("Welcome!!!")
```

```
Welcome!!!
```

Print a your favourite book/movie title

In [ ]:
```
print("Cast Away")
```

```
Cast Away
```

In [ ]:
```
print(25)
```

```
25
```

In [ ]:
```
print(176.5)
```

```
176.5
```

#Rules for variable naming Must start with a letter (a-z, A-Z) or an underscore (_).

Can be followed by letters, digits (0-9), or underscores.

Cannot start with a digit.

Are case-sensitive (Age and age are different)

Examples:

Valid: myVariable, _my_variable, variable123

Invalid: 1variable, variable-name, variable!

In [ ]:
```
#variable initialization
age=44
Age=7
print(age)
print(Age)
```

```
44
7
```

In [ ]:
```
acc_balance=10000
```

In [ ]:
```
print(acc_balance)
```

```
10000
```

In [ ]:
```
print("My age is ",age)
```

```
My age is  25
```

In [ ]:
```
acc_balance=123456
print("Account balance = R",acc_balance)
```

```
Account balance = R 10000
```

In [ ]:
```
age=30
print("My age is", age)
```

```
My age is age
```

# Programming comments

Comments in programming are text notes included within the code to provide explanations, clarifications, or to leave reminders for developers. They are ignored by the compiler or interpreter, meaning they do not affect the execution of the code.

single line comment: #

multiple line comment:

""" This is

a multiline

comment """

In [ ]:
```
"""
this is
multiline
comment
"""
print("Hello")
```

```
Hello
```

In [ ]:
```
#Task - Initialize height variable and print it
```

In [ ]:
```
#Task - Initialize population variable and print it
```

In [ ]:
```
#initialising string variable
name="Sibo"
print("My name is ", name)
```

```
My name is  Sibo
```

In [ ]:
```
#Task - Initialize country and capital variable and print them
```

#Special characters

\n New line character - adds a line break in the text.

\t - adds a tab in the text

In [ ]:
```
print("My name is Nilay. I worked at Digital Regenesys. My skills inclu
```

```
My name is Nilay. I worked at Digital Regenesys. My skills include Data Sc
ience and AI
```

In [ ]:
```
print("My name is Nilay.\tI worked at Digital Regenesys.\tMy skills inc
```

```
My name is Nilay.       I worked at Digital Regenesys.  My skills include
Data Science and AI
```

In [ ]:
```
#add \n in the following print statement
print("This is for the first time I am writing Python code. Python seems
```

In [ ]:
```
#add \t in the following print statement
print("This is for the first time I am writing Python code. Python seems
```

In [ ]:
```
# data type
type(age)
```

Out[30]:
```
int
```

In [ ]:
```
height=177.8
type(height)
```

Out[31]:
```
float
```

In [ ]:
```
country="Kenya"
type(country)
```

Out[32]:
```
str
```

In [ ]:
```
# get the data type of height, country, name using type()
```

In [1]:
```
#computation using variable
#addition code
x=5
y=2
sum=x+y
print(sum)
```

```
7
```

In [ ]:
```
#printing z value i.e. output
print("The sum of x and y is ",sum)
```

```
The sum of x and y is  7
```

In [ ]:
```
#printing input values i.e. x and y along with output value i.e. z
print("The sum of", x ," and ", y," is ",sum)
```

```
The sum of 5 and 2  is  7
```

#Arithmetic operators : Addtion: +

x+y

Subtraction: -

x-y

Multiplication: *

x*y

Division: /

x/y

Integer division: //

x//y

Modulus (Remainder): %

x%y

Exponent: **

x**y

In [2]:
```
x,y
```

Out[2]:
```
(5, 2)
```

In [4]:
```
difference=x-y
print("The subtraction of", x ,"and", y," is ",difference)
product=x*y
print("The multiplication of", x ,"and", y," is ",product)
quotient=x/y
print("The division of", x ,"and", y," is ",quotient)
```

```
The subtraction of 5 and 2  is  3
The multiplication of 5 and 2  is  10
The division of 5 and 2  is  2.5
```

In [6]:
```
result = x**y
print(result)
```

```
25
```

In [ ]:
```
#Task - Initialize variables a and b, calculate their subtraction, mult
```

#Keywords Python has a set of reserved words that have special meanings and cannot be used as identifiers (such as variable names, function names, etc.). These reserved words are known as keywords. Here's a list of all the Python keywords:

In [ ]:
```
import keyword
print("Following is the list of keywords in Python")
print(keyword.kwlist)
```

```
Following is the list of keywords in Python
['False', 'None', 'True', 'and', 'as', 'assert', 'async', 'await', 'brea
k', 'class', 'continue', 'def', 'del', 'elif', 'else', 'except', 'finall
y', 'for', 'from', 'global', 'if', 'import', 'in', 'is', 'lambda', 'nonloc
al', 'not', 'or', 'pass', 'raise', 'return', 'try', 'while', 'with', 'yiel
d']
```

In [8]:
```
#billing app for coffee shop
#initialise variables
unit_price=10
order_count=5

#calculate bill amount
bill_amount=unit_price*order_count

#print the output
print("The unit price = R",unit_price)
print("The order count = ",order_count)
print("The bill amount = R",bill_amount)
```

```
The unit price = R 10
The order count =  5
The bill amount = R 50
```

In [ ]:
```
"""
Write a Python code to
calculate sum of marks obtained in three subjects (maximum marks for ea
and print the final output
"""
```

In [ ]:
```

```

# input() Function

The input() function is used to take input from the user. It reads a line from the input (usually from the user via the keyboard) and returns it as a string.

In [22]:
```
#billing app for coffee shop
#initialise variables
unit_price=float(input("Enter the unit price:"))
order_count=int(input("Enter the order count:"))
```

```
Enter the unit price:10.5
Enter the order count:6
```

In [23]:
```
#calculate bill amount
bill_amount=unit_price*order_count

#print the output
print("The unit price = R",unit_price)
print("The order count = ",order_count)
print("The bill amount = R",bill_amount)
```

```
The unit price = R 10.5
The order count =  6
The bill amount = R 63.0
```

In [ ]:
```
"""
Task- Write a Python code to accept marks of three subjects using input
calculate sum of marks (maximum marks for each subject: 100)
and print the final output
"""
```

In [ ]:
```
"""
Task- Write a Python code for the following scenario:
A household consumes 350 units of electricity in a month, with the rate
Calculate the total electricity bill for the month and display the units

"""
```

In [ ]:
```
"""
Write a Python code for the following scenario:
For a given value of basic salary, calaculate gross salary considering H
"""
```

In [ ]:
```

```