Python

In [5]:
```
print("Hello to Python, Machine Learning & Data Science")
```

```
Hello to Python, Machine Learning & Data Science
```

1. Control + enter >> To run the current cell 2. Shift + enter >> To run current cell and go to next cell 3. Alt + enter >> To run current cell and create new cell

Python Introduction

1. Key Features of Python

In [ ]:
```
1. Python is an interpreted language:
    It does not require prior compilation

2. Python is Object oriented, high level programming language

3. Python is compatible with different platform like Mac, Linux, W
indows, Rasberry Pi

4. Simple to debug

5. Progammer friendly language

6. Dynamically typed Language(No need to decalare variable data ty
pe)
```

Print Function

In [6]:
```
x = 'Python Language'
y = "python Language"
print(x)
print(y)
```

```
Python Language
python Language
```

In [ ]:
```
a = 100
print('The value of a is :',a)
```

```
The value of a is : 100
```

In [ ]:
```
a = 100
b = 200
print('Addition of a and b is :',a+b)
```

```
Addition of a and b is : 300
```

In [ ]:
```
a = 100
b = 200
c = a + b
print('Addition of a and b is :',c)
```

```
Addition of a and b is : 300
```

In [ ]:
```
a = 100
b = 200
c = a + b
print('Addition of 100 and 200 is :',c)
```

```
Addition of 100 and 200 is : 300
```

In [ ]:
```
a = 300
b = 200
c = a + b
print('Addition of 100 and 200 is :',c)
```

```
Addition of 100 and 200 is : 500
```

In [ ]:
```
# Format string
```

In [ ]:
```
a = 300
b = 200
c = a + b
print('Addition of {} and {} is : {}'.format(a,b,c))
```

```
Addition of 300 and 200 is : 500
```

In [ ]:
```
a = 100
b = 200
c = a + b
print('Addition of {} and {} is : {}'.format(a,b,c))
```

```
Addition of 100 and 200 is : 300
```

In [ ]:
```
a = 100
b = 200
c = a + b
print(f'Addition of {a} and {b} is : {c}')
```

```
Addition of 100 and 200 is : 300
```

In [ ]:
```
a = 10
b = 20
c = a * b
print(f'Multiplication of {a} and {b} is : {c}')
```

```
Multiplication of 10 and 20 is : 200
```

In [ ]:
```
a = 10
b = 20
c = a * b
print(f'Multiplication of a and b is : ',c)
```

```
Multiplication of a and b is :  200
```

In [ ]:
```
a = 10
b = 200
c = a * b
print(f'Multiplication of',a,'and', b , 'is',c)
```

```
Multiplication of 10 and 200 is 2000
```

In [ ]:
```
a = 10
b = 20
c = a * b
print(f'Multiplication of {a} and {b} is : {c}')
```

```
Multiplication of 10 and 20 is : 200
```

In [7]:
```
a = "python Language"   # Double
b = 'Python Language'  # single
c = """Python Language""" # Triple >> Multiline string

print(a)
print(b)
print(c)
```

```
python Language
Python Language
Python Language
```

In [8]:
```
c= """
python
Language
"""
print(c)
```

```

python
Language

```

In [9]:
```
a = """python
and data science Language"""
print(a)
```

```
python
and data science Language
```

Comments in Python

In [ ]:
```
1. #
2. Control + / (Single line or multiple line)
3. Triple quotes
```

In [1]:
```
print('Machine learning')
print("Testing comments in python")
print('Data Science')
```

```
Machine learning
Testing comments in python
Data Science
```

In [2]:
```
print('Machine learning')
print("Testing comments in python")
print('Data Science')
```

```
Machine learning
Testing comments in python
Data Science
```

In [3]:
```
x = """
print('Machine learning')
print("Testing comments in python")
print('Data Science')
"""
print(x)
```

```
print('Machine learning')
print("Testing comments in python")
print('Data Science')
```

In [ ]:
```

```

In [4]:
```
print('Machine Learning')
# print("Testing comments in python")
# print('Data Science')

# print("Testing MultiLine Comments")
```

```
Machine Learning
```

Indentation

Space at the beginning of code line Same indentation is required for block(if, for , while , try)

In [ ]:
```
a = 100
if a > 50:
    print('a is greater than 50')
```

```
a is greater than 50
```

In [12]:
```
a = 100
if a > 50:
        print('a is greater than 50')
        print("Testing indentation block")
```

```
a is greater than 50
Testing indentation block
```

In [ ]:
```
a = 100
if a > 50:
    print('a is greater than 50')
     print("Testing indentation block")
```

```
  File "<ipython-input-126-0dba613fbe16>", line 4
    print("Testing indentation block")
    ^
IndentationError: unexpected indent
```

In [13]:
```
a = 40
if a > 50:
    print('a is greater than 50')

elif a < 50:
    print ('a is less than 50')
    print('Testing elif block')
```

```
a is less than 50
Testing elif block
```

In [15]:
```
a = 40
if a > 50:
    print('a is greater than 50')

elif a < 50 :
    print ('a is less than 50')
    print('Testing elif block')
```

```
a is less than 50
Testing elif block
```

In [ ]:
```

```