

## Exercise 1

Name: Sumit Tile

Reg. No. : 19MAI0040

### #Sample python program

```
a=2
b=3
add=a+b

print("Addition is",add)
```

### Output:

Addition is 5

**Description:** In this program we learned how to store value in an variable and how can we do mathematical operations on variables

### #String Program 1

```
str1="Shakespeare gave the best theatrics to the world"

print(str1)
```

### Output:

Shakespeare gave the best theatrics to the world

**Description:** Here we learned to manipulate strings using double quotes

### #String Program 2

```
str1='Shakespeare gave the best theatrics to the world'
print(d)
```

### Output:

File "<ipython-input-20-cdf985063de6>", line 1

```
str1='Shakespeare gave the best theatrics to the world'
```

^

SyntaxError: EOL while scanning string literal

**Description:** If we use single and double quotes for a string at a time it will give you syntax error

### #String Program 3

```
str2="William Shakespeare (bapt. 26 April 1564 – 23 April 1616)[a] was an English poet, playwright, and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist.[2][3][4] He is often called England's national poet and the "Bard of Avon" (or simply "the Bard").[5][b] His extant works, including collaborations, consist of some 39 plays,[c] 154 sonnets, two long narrative poems, and a few other verses, some of uncertain authorship. His plays have been translated into every major living language and are performed more often than those of any other playwright.[7] "  
  
print(str2)
```

### Output:

File "<ipython-input-12-4aacf2c4be6c>", line 1

```
e="William Shakespeare (bapt. 26 April 1564 – 23 April 1616)[a] was an English poet, playwright, and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist.[2][3][4] He is often called England's national poet and the "Bard of Avon" (or simply "the Bard").[5][b] His extant works, including collaborations, consist of some 39 plays,[c] 154 sonnets, two long narrative poems, and a few other verses, some of uncertain authorship. His plays have been translated into every major living language and are performed more often than those of any other playwright.[7] "
```

^

SyntaxError: invalid syntax

**Description:** Double quotes cannot process paragraphs or multiline string

### #String Program 4

```
str2="""William Shakespeare (bapt. 26 April 1564 – 23 April 1616)[a] was an English poet, playwright, and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist.[2][3][4] He is often called England's national poet and the "Bard of Avon" (or simply "the Bard").[5][b] His extant works, including collaborations, consist of some 39 plays,[c] 154 sonnets, two long narrative poems, and a few other verses, some of uncertain authorship. His plays have been translated into every major living language and are performed more often than those of any other playwright.[7] """  
  
print(str2)
```

### Output:

William Shakespeare (bapt. 26 April 1564 – 23 April 1616)[a] was an English poet, playwright, and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist.[2][3][4] He is often called England's national poet and the "Bard of Avon" (or simply "the Bard").[5][b] His extant works, including collaborations, consist of some 39 plays,[c] 154 sonnets, two long narrative poems, and a few other verses, some of uncertain authorship. His plays have been translated into every major living language and are performed more often than those of any other playwright.[7]

**Description:** To process the paragraphs or multiline string we can use the triple single or double quotes

### #String Program 5

```
str2="William Shakespeare (bapt. 26 April 1564 – 23 April 1616)[a] was an English poet, playwright, and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist.[2][3][4] He is often called England's national poet and the "Bard of Avon" (or simply "the Bard").[5][b] His extant works, including collaborations, consist of some 39 plays,[c] 154 sonnets, two long narrative poems, and a few other verses, some of uncertain authorship. His plays have been translated into every major living language and are performed more often than those of any other playwright.[7] "
```

```
print(str2)
```

#### Output:

William Shakespeare (bapt. 26 April 1564 – 23 April 1616)[a] was an English poet, playwright, and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist.[2][3][4] He is often called England's national poet and the "Bard of Avon" (or simply "the Bard").[5][b] His extant works, including collaborations, consist of some 39 plays,[c] 154 sonnets, two long narrative poems, and a few other verses, some of uncertain authorship. His plays have been translated into every major living language and are performed more often than those of any other playwright.[7]

In [16]:

**Description:** To process the paragraphs or multiline string we can use the triple single or double quotes

### #List Program 1

```
cities=['Berlin','Paris','London','Rome','Amsterdam','Prague','Vienna','Barcelona','Budapest','Madrid']
```

```
print(cities)
```

#### Output:

```
['Berlin', 'Paris', 'London', 'Rome', 'Amsterdam', 'Prague', 'Vienna', 'Barcelona', 'Budapest', 'Madrid']
```

**Description:** The basic program of list in python to demonstrate various functions and uses, syntaxes

### #Tuple Program 1

```
cities=['Berlin','Paris','London','Rome','Amsterdam','Prague','Vienna','Barcelona','Budapest','Madrid']
```

```
for i in range(0,10):
```

```
    print(cities[i])
```

### Output:

Berlin

Paris

London

Rome

Amsterdam

Prague

Vienna

Barcelona

Budapest

Madrid

**Description:** Tuple is a static list where updates are not allowed

### #Dictionary Program 1

```
dict1={'Lionel Messi': 'Football','Roger Federer':'Tennis','LeBron James':'Basketball','Tiger Woods':'Golf'}
```

```
print(dict1)
```

### Output:

```
{'Lionel Messi': 'Football', 'Roger Federer': 'Tennis', 'LeBron James': 'Basketball', 'Tiger Woods': 'Golf'}
```

**Description:** Dictionaries is features of python which allows you to store multiple dimension values

## #Dictionary Program 2

```
dict1={'Lionel Messi': 'Football','Roger Federer': 'Tennis','LeBron James': 'Basketball','Tiger Woods': 'Golf'}
```

```
for i in range(0,4):  
    print(dict1[i])
```

### Output:

```
KeyError                                Traceback (most recent call last)  
<ipython-input-30-821cdf8d8aee> in <module>  
    2  
    3 for i in range(0,4):  
----> 4     print(dict1[i])
```

```
KeyError: 0
```

## #Tuple Program 2

```
tuple2=(105,107,407,'Moscow')  
print(tuple2)
```

### Output:

```
(105, 107, 407, 'Moscow')
```

**Description:** In list and tuple we can have values of different data types at a single time such as int, char, etc.