PYTHON DEVELOPER

TASK-1

Basic Python Syntax Understanding

Description:

The intern will learn foundational Python concepts such as variables, data types, loops, and functions.

Responsibility:

1. Study Python syntax through tutorials and simple coding exercises.
2. Practice writing basic scripts to perform arithmetic operations, manipulate strings, and use conditional statements.
3. Gain familiarity with common data structures like lists, dictionaries, and tuples.

In [1]:
```
# Arithmetic Operations
x = 5
y = 3
# Addition
result = x + y
print("Addition:", result)
# Subtraction
result = x - y
print("Subtraction:", result)
# Multiplication
result = x * y
print("Multiplication:", result)
# Division
result = x / y
print("Division:", result)
```

```
Addition: 8
Subtraction: 2
Multiplication: 15
Division: 1.6666666666666667
```

In [2]:
```
# String Manipulation
name = "jay"
greeting = "Hello, " + name + "!"

print(greeting)
```

```
Hello, jay!
```

In [4]:
```
# Conditional Statements
age = 25

if age >= 18:
    print("You are eligible to vote.")
else:
    print("You are not eligible to vote.")
```

```
You are eligible to vote.
```

In [6]:
```
# Conditional Statement with elif
score = 91

if score >= 90:
    print("Grade: A")
elif score >= 80:
    print("Grade: B")
elif score >= 70:
    print("Grade: C")
else:
    print("Grade: F")
```

```
Grade: A
```

In [7]:
```
#list
my_list=[1,2,3,4,5]

my_list.append(8)
my_list.remove(3)
my_list[2]=15

print("updated list: ",my_list)
```

```
updated list:  [1, 2, 15, 5, 8]
```

In [8]:
```
#dictionary
my_dict = {'name': 'jay', 'Age': 21, 'city' : 'Hyderabad'}

my_dict['gender'] = 'male'
del my_dict['city']
my_dict['age'] = 23

print("Updated dictionary: ", my_dict)
```

```
Updated dictionary:  {'name': 'jay', 'Age': 21, 'gender': 'male', 'age':
23}
```

In [9]:
```
#sets
my_set={1,2,3,4,5}

my_set.add(6)
my_set.remove(3)
my_set.discard(7)

print("Updated set: ",my_set)
```

```
Updated set:  {1, 2, 4, 5, 6}
```

In [10]:
```
#tuple
my_tuple = (1, 2, 3, 4, 5)
print("Original Tuple:", my_tuple)
# Indexing and Slicing
print("First element:", my_tuple[0])
print("Last element:", my_tuple[-1])
print("Slice from index 1 to 3:", my_tuple[1:3])

# Tuple Concatenation
tuple1 = (1, 2, 3)
tuple2 = (4, 5, 6)
concat_tuple = tuple1 + tuple2
print("Concatenated Tuple:", concat_tuple)

# Tuple Multiplication
multiplied_tuple = my_tuple * 3
print("Multiplied Tuple:", multiplied_tuple)

# Tuple Length
print("Length of the tuple:", len(my_tuple))
```

```
Original Tuple: (1, 2, 3, 4, 5)
First element: 1
Last element: 5
Slice from index 1 to 3: (2, 3)
Concatenated Tuple: (1, 2, 3, 4, 5, 6)
Multiplied Tuple: (1, 2, 3, 4, 5, 1, 2, 3, 4, 5, 1, 2, 3, 4, 5)
Length of the tuple: 5
```

In [ ]: