```python
#Python Developer Task-1

#Creating and storing the value in the variable
Name = "John"
Age = 20
is_student = True

print(Name)
print(Age)
is_student
```

```
John
20

True
```

```python
#using Data Types in python
Mark = 90
Temperature = 98.3
Information = "Welcome to python programming"
is_valid = True

print(type(Mark))
print(type(Temperature))
print(type(Information))
print(type(is_valid))
```

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

```python
#Loops in python
#for loop
# Define a list of fruits
fruits = ["apple", "banana", "cherry", "date", "elderberry"]

# Loop through the list and print each fruit
for fruit in fruits:
    print(fruit)
```

```
apple
banana
cherry
date
elderberry
```

```python
#While loop
# Initialize a counter variable
count = 0

# Loop while count is less than 5
```

```python
while count < 5:
    print(count)
    count += 1
```

```
0
1
2
3
4
```

```python
#function in python
# Define a function that adds two numbers and returns the result
def add(a, b):
    return a + b

# Call the function and store the result
result = add(3, 5)
print("The sum is:", result)
```

```
The sum is: 8
```

```python
#Basic Arithmetic Operations
# Addition
a = 10
b = 5
addition = a + b
print("Addition:", addition)

# Subtraction
subtraction = a - b
print("Subtraction:", subtraction)

# Multiplication
multiplication = a * b
print("Multiplication:", multiplication)

# Division
division = a / b
print("Division:", division)

# Modulus
modulus = a % b
print("Modulus:", modulus)

# Exponentiation
exponentiation = a ** b
print("Exponentiation:", exponentiation)

#Floor Division
Floor_Division = a//b
print("Floor Division:", Floor_Division)
```

```
Addition: 15
Subtraction: 5
Multiplication: 50
Division: 2.0
Modulus: 0
Exponentiation: 100000
Floor Division: 2
```

```python
#String Manipulataion in python
# Concatenation
str1 = "Star"
str2 = "Wars"
concatenation = str1 + " " + str2
print("Concatenation:", concatenation)

# Repetition
repetition = str1 * 3
print("Repetition:", repetition)

# Slicing
sliced = str1[1:4]
print("Sliced:", sliced)

# Length
length = len(str1)
print("Length:", length)

# Upper and Lower Case
upper_case = str1.upper()
lower_case = str1.lower()
print("Upper Case:", upper_case)
print("Lower Case:", lower_case)
```

```
Concatenation: Star Wars
Repetition: StarStarStar
Sliced: tar
Length: 4
Upper Case: STAR
Lower Case: star
```

```python
#conditional Statements in python
# If-else statement
num = 77
if num > 0:
    print("The number is positive.")
elif num == 0:
    print("The number is zero.")
else:
    print("The number is negative.")
```

```python
# Nested if-else
if num > 0:
    if num % 2 == 0:
        print("The number is positive and even.")
    else:
        print("The number is positive and odd.")
else:
    print("The number is not positive.")
```

```
The number is positive.
The number is positive and odd.
```

```python
import pandas as pd

#lis operation in python
# Creating a list
my_list = [1, 2, 3, 4, 5]

# Accessing elements
print("First element:", my_list[0])
print("Last element:", my_list[-1])

# Adding elements
my_list.append(6)
print("After appending 6:", my_list)

# Removing elements
my_list.remove(3)
print("After removing 3:", my_list)

# Slicing
sliced_list = my_list[1:4]
print("Sliced list:", sliced_list)
```

```
First element: 1
Last element: 5
After appending 6: [1, 2, 3, 4, 5, 6]
After removing 3: [1, 2, 4, 5, 6]
Sliced list: [2, 4, 5]
```

```python
#Dictionary in python
# Creating a dictionary
my_dict = {"name": "Davis", "age": 30, "city": "New York"}

# Accessing elements
print("Name:", my_dict["name"])
print("Age:", my_dict["age"])

# Adding elements
my_dict["email"] = "alice@example.com"
print("After adding email:", my_dict)
```

```python
# Removing elements
del my_dict["age"]
print("After removing age:", my_dict)

# Looping through dictionary
for key, value in my_dict.items():
    print(key, ":", value)
```

```
Name: Davis
Age: 30
After adding email: {'name': 'Davis', 'age': 30, 'city': 'New York',
'email': 'alice@example.com'}
After removing age: {'name': 'Davis', 'city': 'New York', 'email':
'alice@example.com'}
name : Davis
city : New York
email : alice@example.com
```

```python
#Tuples in python
# Creating a tuple
my_tuple = (1, 2, 3, 4, 5)

# Accessing elements
print("First element:", my_tuple[0])
print("Last element:", my_tuple[-1])

# Slicing
sliced_tuple = my_tuple[1:4]
print("Sliced tuple:", sliced_tuple)

# Tuples are immutable, so you cannot add or remove elements.
```

```
First element: 1
Last element: 5
Sliced tuple: (2, 3, 4)
```