

**Assignment -2**  
Python Programming

Assignment Date	24 September 2022
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Maximum Marks	2 Marks

**Question-1:**

1) Consider a list (list = []). You can perform the following commands:

insert i e: Insert integer e at position i.

print: Print the list.

remove e: Delete the first occurrence of integer e.

append e: Insert integer e at the end of the list.

sort: Sort the list.

pop: Pop the last element from the list.

reverse: Reverse the list.

Initialize your list and read in the value of n followed by n lines of commands where each command will be of the types listed above.

Iterate through each command in order and perform the corresponding operation on your list.

**Program:**

**List.py**

```
list = [1, 12, 44, 7, 9]

# Insert integer e at position i
print("Before insert the integer", list)

list.insert(2, 2)

print("Insert integer e at position", list)

print('Delete the first occurrence of integer')
list.remove(1)
print(list)

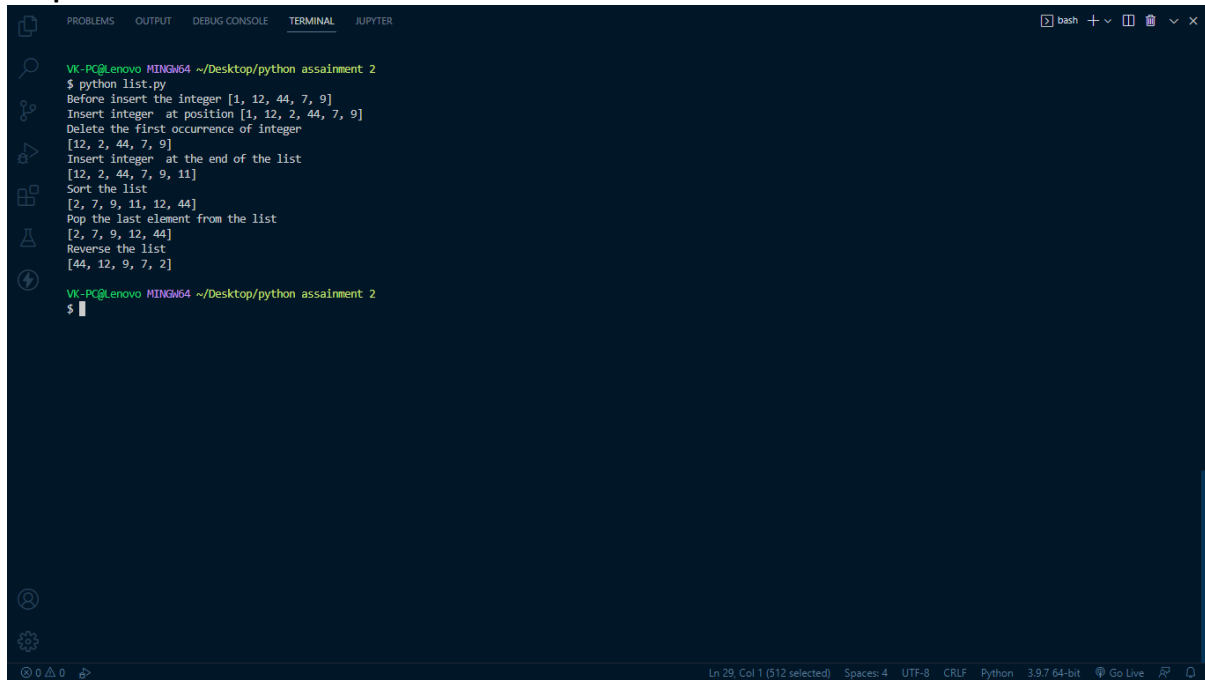
print("Insert integer e at the end of the list")
list.append(11)
print(list)

print("Sort the list")
list.sort()
print(list)

print("Pop the last element from the list")
list.pop(3)
print(list)
```

```
print('Reverse the list')
list.reverse()
print(list)
```

### Output Screen:



```
VK-PC@lenovo MINGW64 ~/Desktop/python assainment 2
$ python list.py
Before insert the integer [1, 12, 44, 7, 9]
Insert integer  at position [1, 12, 2, 44, 7, 9]
Delete the first occurrence of integer
[12, 2, 44, 7, 9]
Insert integer  at the end of the list
[12, 2, 44, 7, 9, 11]
Sort the list
[2, 7, 9, 11, 12, 44]
Pop the last element from the list
[2, 7, 9, 12, 44]
Reverse the list
[44, 12, 9, 7, 2]
VK-PC@lenovo MINGW64 ~/Desktop/python assainment 2
$
```

### Question-2:

1 . Write a Calculator program in Python?

Claculator.py

# This function adds two numbers

def add(x, y):

return x + y

# This function subtracts two numbers

def subtract(x, y):

return x - y

# This function multiplies two numbers

def multiply(x, y):

return x \* y

**# This function divides two numbers**

**def divide(x, y):**

**return x / y**

**print("Select operation.")**

**print("1.Add")**

**print("2.Subtract")**

**print("3.Multiply")**

**print("4.Divide")**

**while True:**

**# take input from the user**

**choice = input("Enter choice(1/2/3/4): ")**

**# check if choice is one of the four options**

**if choice in ('1', '2', '3', '4'):**

**num1 = float(input("Enter first number: "))**

**num2 = float(input("Enter second number: "))**

**if choice == '1':**

**print(num1, "+", num2, "=", add(num1, num2))**

**elif choice == '2':**

**print(num1, "-", num2, "=", subtract(num1, num2))**

**elif choice == '3':**

**print(num1, "\*", num2, "=", multiply(num1, num2))**

**elif choice == '4':**

```

        print(num1, "/", num2, "=", divide(num1, num2))

    # check if user wants another calculation

    # break the while loop if answer is no

    next_calculation = input("Let's do next calculation? (yes/no): ")

    if next_calculation == "no":

        break

else:

    print("Invalid Input")

```

### OutPut Screen:

```

VC-PC@enovo MINGW64 ~/Desktop/python assainment 2
$ python calculator.py
Select operation.
1.Add
2.Subtract
3.Multiply
4.Divide
Enter choice(1/2/3/4): 1
Enter first number: 2
Enter second number: 5
2.0 + 5.0 = 7.0
Let's do next calculation? (yes/no): y
Enter choice(1/2/3/4): 3
Enter first number: 5
Enter second number: 4
5.0 * 4.0 = 20.0
Let's do next calculation? (yes/no): 

```

## 2. Write a program to concatenate, reverse and slice a string?

### String.py

```

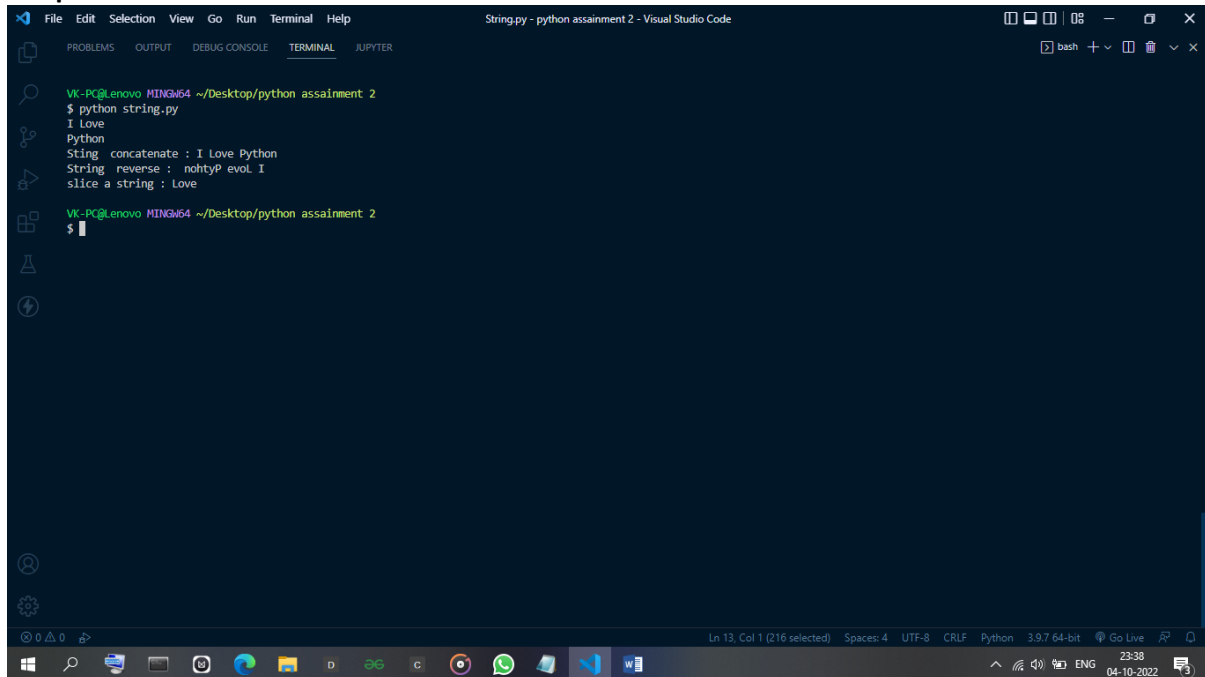
var1 = "I Love "
var2 = "Python"
print(var1)
print(var2)
var3 = var1 + var2
print("Sting concatenate :", var3)

```

```
var4 = var3[::-1]
print("String reverse : ", var4)

print("slice a string :", var3[2:7])
```

#### outputScreen:

A screenshot of a Visual Studio Code terminal window. The terminal shows the execution of a Python script named 'string.py'. The output of the script is displayed in the terminal, showing the concatenation of 'I Love Python', the reversed string 'nohtyP evol I', and a slice of the string 'Love'. The terminal window is titled 'String.py - python assainment 2 - Visual Studio Code'. The status bar at the bottom indicates 'Ln 13, Col 1 (216 selected)', 'Spaces: 4', 'UTF-8', 'CRLF', 'Python', '3.9.7 64-bit', 'Go Live', and the date '04-10-2022'.

### 3. Why is Python a popular programming language?

it has simplified syntax and not complicated, its ease of learning and usage, python codes can be easily written and executed much faster than other programming languages.

### 4. What are the other Frameworks that can be used with python?

- Django.
- Flask

### 5. Full form of WSGI?

Web Server Gateway Interface