

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)

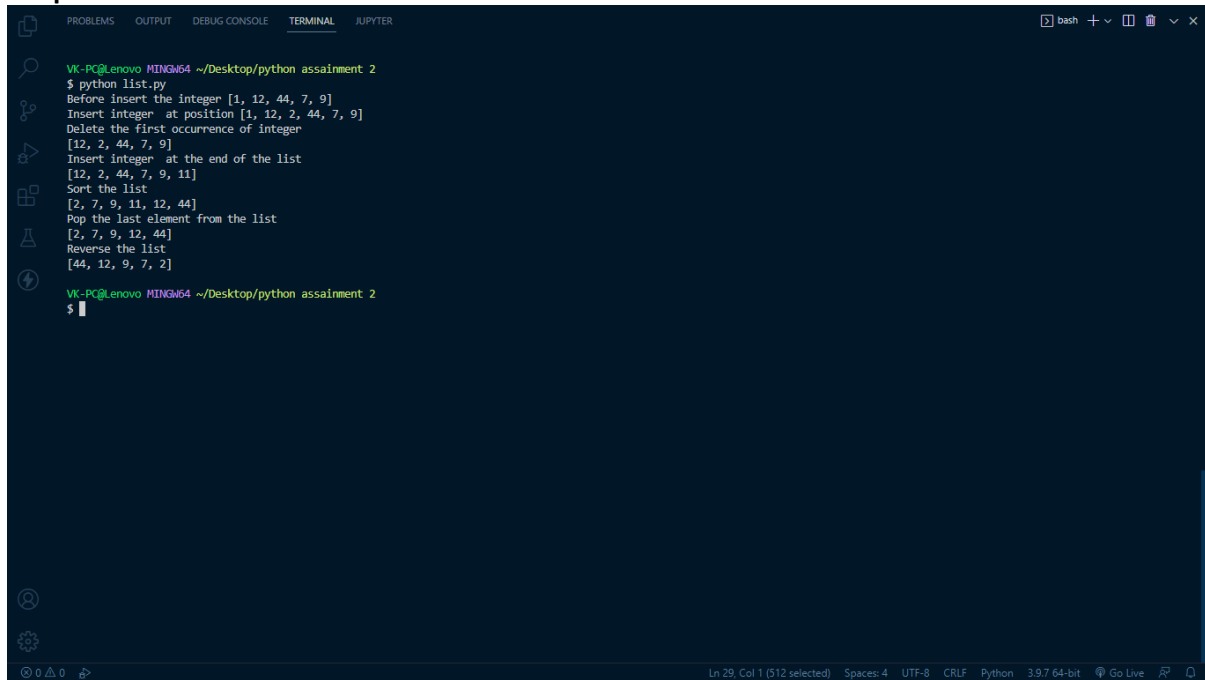
print("Insert integer e at the end of the list")
list.append(11)
print(list)

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): ")
```

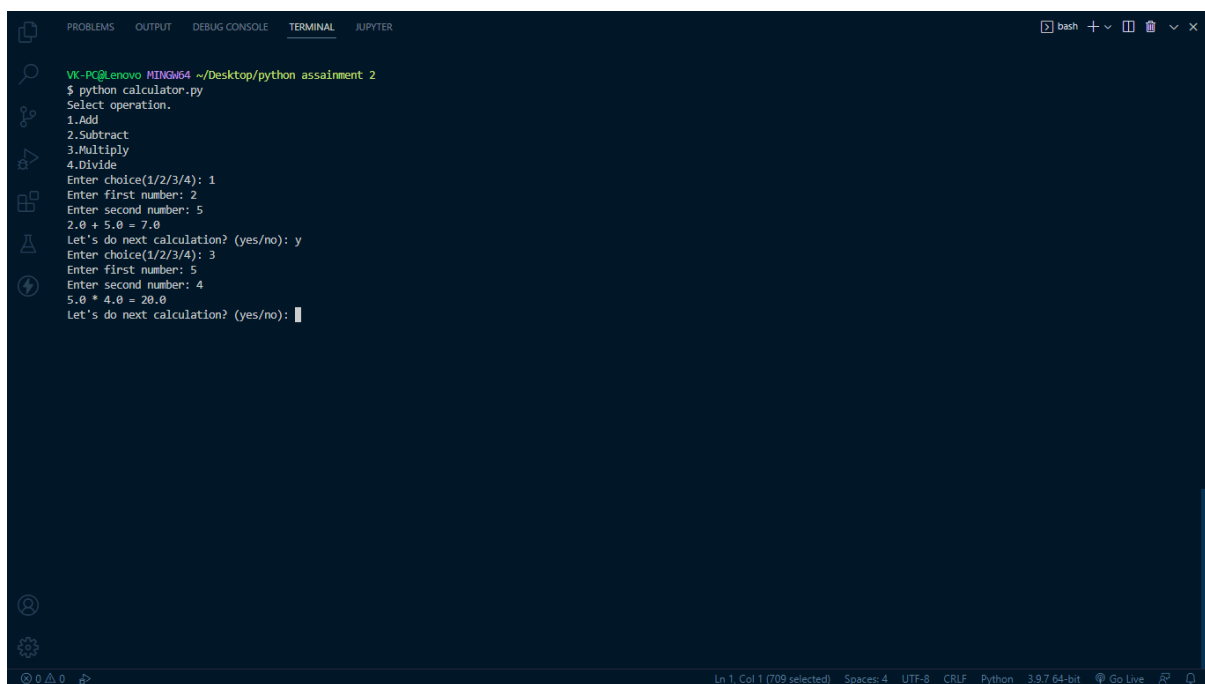
```
if next_calculation == "no":
```

```
    break
```

```
else:
```

```
    print("Invalid Input")
```

OutPut Screen:



```
VC-PC@lenovo MINGW64 ~/Desktop/python assignment 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?

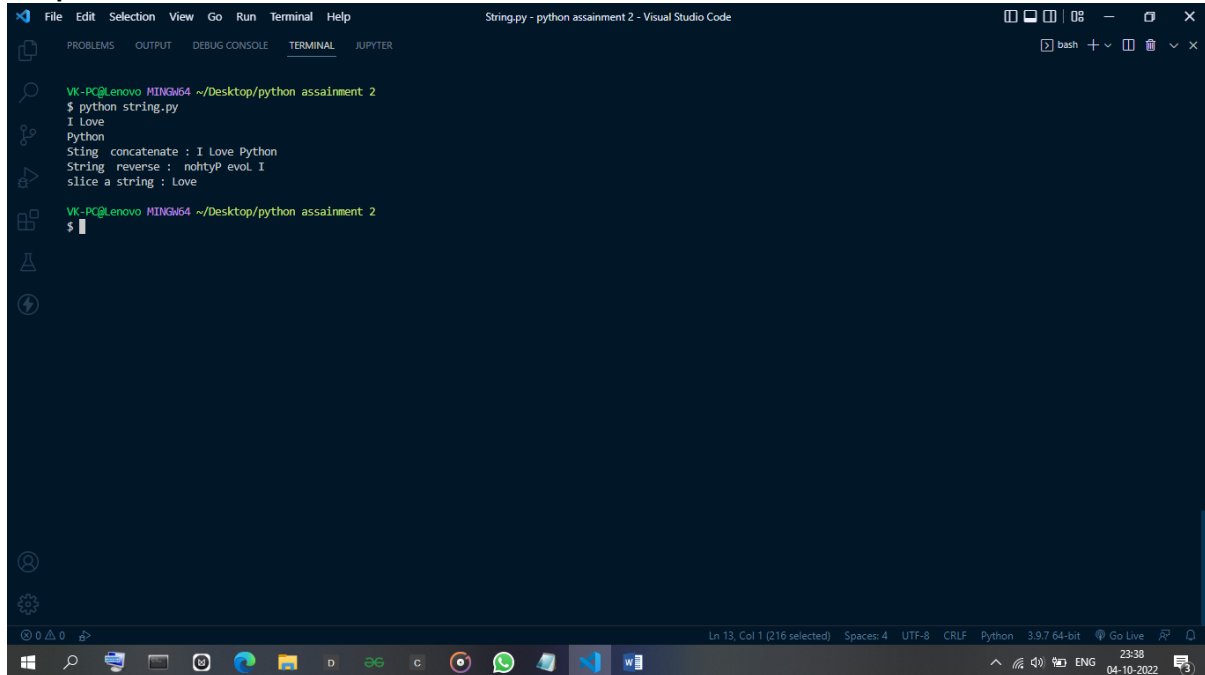
String.py

```
var1 = "I Love "
var2 = "Python"
print(var1)
print(var2)
var3 = var1 + var2
print("String 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 string 'I Love Python' and its reverse 'nohtyP evol I'. 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', and 'Go Live'. The system tray at the bottom right shows the time '23:38' 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