### Assignment -1

## **Python Programming**

Assignment Date	12 September 2022
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Maximum Marks	2 Marks

### Question-1:

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

- 1. insert i e: Insert integer e at position i.
- 2. print: Print the list.
- 3. remove e: Delete the first occurrence of integer e.
- 4. append e: Insert integer e at the end of the list.
- 5. sort: Sort the list.
- 6. pop: Pop the last element from the list.
- 7. 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 7 types listed above. Iterate through each command in order and perform the corresponding operation on your list.

## **Solution:**

list=[1,3,1,5,2,4,1]
list.insert(5,6)
print('inserted list',list)
list.remove(1)
print('removed list',list)
list.append(7)
print('appended list',list)
list.sort()
print('sorted list',list)
list.pop()
print('popped list',list)
list.reverse()
print('reversed list',list)

#### Question-2:

#### Write a calculator program in python

```
Solution:
def add(x,y):
return x+y
def subtract(x,y):
return x-y
def multiply(x,y):
return x*y
def divide(x,y):
return x/y
print("Select operation")
print("1.Add")
print("2.Subract")
print("3.Multiply")
print("4.Divide")
While True:
choice = input("Enter choice(1/2/3/4):")
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))
next_calculation = input("Let's do next calculation?(yes/no):")
if next calculation == " no ":
break
```

```
else:
print(" Invalid Input ")
```

```
alculator.py - C:/Users/sivan/Downloads/calculator.py (3.9.6)
                                                                                                                     IDLE Shell 3.9.6
File Edit Format Run Options Window Help
                                                                                                                     File Edit Shell Debug Options Window Help
                                                                                                                    Python 3.9.6 (tags/v3.9.6:db3ff76, Jun 28 2021, 15: 26:21) [MSC v.1929 64 bit (AMD64)] on win32 Type "help", "copyright", "credits" or "license()"
def add(x, y):
def subtract(x, y):
                                                                                                                    for more information.
def multiply(x, y):
    return x * y
                                                                                                                     ======== RESTART: C:/Users/sivan/Downloads/
def divide(x, y):
    return x / y
print("Select operation")
                                                                                                                     calculator.py ===
                                                                                                                     Select operation
                                                                                                                     1.Add
print("1.Add")
                                                                                                                     2.Subtract
print("2.Subtract")
print("3.Multiply")
                                                                                                                     3.Multiply
                                                                                                                     4.Divide
print("4.Divide")
                                                                                                                    Enter choice(1/2/3/4): 1
Enter first number: 10
     let Tue:
   choice = input("Enter choice(1/2/3/4): ")
   if choice in ('1','2','3','4'):
        numl = float(input("Enter first number: "))
        num2 = float(input("Enter second number:"))
        if choice == '1':
                                                                                                                    Enter second number:23
10.0 + 23.0 = 33.0
                           if choice == '1':
    print(num1,"+", num2,"=",add(num1, num2))
                           print("Invalid Input")
                                                                                                                                                                                          Ln: 15 Col: 4
```

### Question-3:

Write a program to concatenate, reverse and slice a string in python

```
Solution:

str1 = "Hello"

str2 = "World"

print("String 1:",str1)

print("String 2:",str2)

str = str1+str2

print("Concatenated two different strings:",str)

reverse_String = ""

count = len(str)

while count > 0:

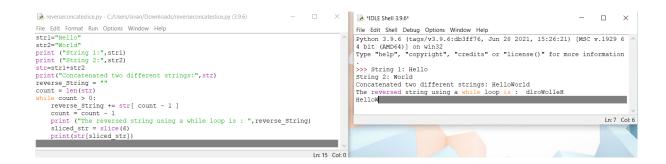
reverse_String += str[ count - 1 ]

count = count - 1

print ("The reversed string using a while loop is: ",reverse_String)

sliced_str = slice(6)

print(str[sliced_str])
```



### Question-4:

#### Why python is popular programming language

Python has a simple syntax and in form of natural english language which helps lot of peopleto get a hold of what is coding in their first experience.it is highly flexible, reliable and fast to code.

## Question-5:

What are the other frameworks that can be used with python?

Bottle,Flask,Django,Web2py,AIOHTTP,CherryPy,Dash Falcon

# Question-6:

## **Full Form of WSGI**

WSGI stands for Web Server Gateway Interface