Assignment 3

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1) Consider a list at the position and print the list.

```
In [2]: Mylist=[1,4,2,3,6,5]
        print(Mylist)
```

```
[1, 4, 2, 3, 6, 5]
```

Remove first occurence of the list

```
In [3]: Mylist=[1,4,2,3,6,5]
        Mylist.remove(Mylist[0])
        print(Mylist)
```

```
[4, 2, 3, 6, 5]
```

Append integer at the end of the list

```
In [4]: Mylist=[1,4,2,3,6,5]
        Mylist.append(7)
        print(Mylist)
```

```
[1, 4, 2, 3, 6, 5, 7]
```

Sort the list

```
In [5]: Mylist=[1,4,2,3,6,5]
        Mylist.sort()
        print(Mylist)
```

```
[1, 2, 3, 4, 5, 6]
```

Pop the last element of the list

```
In [6]: Mylist=[1,4,2,3,6,5]
        Mylist.pop(5)
        print(Mylist)
```

```
[1, 4, 2, 3, 6]
```

Reverse the List

```
In [7]: Mylist=[1,4,2,3,6,5]
        Mylist.reverse()
        print(Mylist)
```

```
[5, 6, 3, 2, 4, 1]
```

2) Write a calculator program in python?

In [9]:
```python
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")
```

```
Select operation.
1.Add
2.Subtract
3.Multiply
4.Divide
Enter choice(1/2/3/4): 1
Enter first number: 22
Enter second number: 22
22.0 + 22.0 = 44.0
Let's do next calculation? (yes/no): no
```

Let's do next calculation? (yes/no): no

3) Write a program to Concatenate ,reverse and slice a string?

```
In [10]: str="Hello"
         print(str)

         Hello
```

Slicing a String

```
In [11]: str="Hello"
         print(str[1:3])

         el
```

Concatenate a string

```
In [12]: str1="Hello"
         str2="World"
         str=str1+str2
         print(str)

         HelloWorld
```

Reverse a string

```
In [13]: str="Hello World"[::-1]
         print(str)

         dlroW olleH
```

4) Why is python a popular programming language?

Python language is incredibly easy to use and learn for new beginners and newcomers. The python language is one of the most accessible programming languages available because it has simplified syntax and not complicated, which gives more emphasis on natural language. Due to its ease of learning and usage, python codes can be easily written and executed much faster than other programming languages.

5) What are the other frame works that can be used with python?

The other frame works that can be used with python are listed below 1.Django. 2.Web2Py. 3.Flask. 4.Bottle. 5.CherryPy.

6) What is the full form of WSGI?

The full form of WSGI is WEB SERVER GATEWAY INTERFACE.The Web Server Gateway Interface (WSGI, pronounced whiskey or WIZ-ghee) is a simple calling convention for web serversto forward requests to web applications or frameworks written in the Python programming language.