

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

- insert : insert integer at position
- print : print the list
- remove : delete the first occurrence of integer
- append : insert integer at end of the list
- sort : sort the list
- pop : pop the last element from the list
- reverse : reverse the list .

Initialize a list and read in the value of followed by lines of command will be of the types listed above. Iterate through each command in order and perform the corresponding operation on your list.

```
list=[89,56,90,34,9,12]
#insert data in the 2nd position
list.insert(2,23)
print(list)
#remove first occurrence of integer
list.remove(0)
print(list)
#append integer at end of the list
list.append(75)
print(list)
#sort the list
list.sort()
print(list)
#pop the element
list.pop(6)
print(list)
#reverse the list
list.reverse()
print(list)
```

2. Write the calculator program in python

```
#program make a simple calculator that can add,subtract,multiply and divide using functions.
#define functions
def add(x,y):
    """This function adds two numbers"""
    return x + y
def subtract(x, y):
    """This function subtracts two numbers"""
    return x - y
def multiply(x, y):
    """This function multiplies two numbers"""
    return x * y
def divide(x, y):
    """This function divides two numbers"""
    return x / y
# take input from the user
print("Select operation.")
print("1.Add")
print("2.Subtract")
print("3.Multiply")
print("4.divide")
choice = input("Enter choice(1/2/3/4):")
num1 = int(input("Enter first number: "))
```

```

num2 = int(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))
else:
    print("Invalid input")

```

3. Write a program to concatenate,reverse and slice a string.

```

string1="welcome"
print(string1)
#concatenation of string
string2="IBM"
print(string1+' '+string2)
#reverse of string
print(string1[::-1])
#slicing of string
print(string[2:])

```

4. Why python a popular programming language

It uses a simplified syntax with an emphasis on natural language, for a much easier learning curve for beginner. And , because python is free to use and is supported by an extremely large ecosystem of libraries and packages, it's often the first-choice language for new developers.

5. What are the frameworks that can be used with python.

There are mainly three types of python frameworks,

- 1.full-stack
2. micro-framework
3. asynchronous framework.

6. Full form of WSGI.

Web Server Gateway Interface