1. **Consider a list (list = []). You can perform the following commands:  
   insert i e: Insert integer  at position .  
   print: Print the list.  
   remove e: Delete the first occurrence of integer .  
   append e: Insert integer  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  followed by  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.**

**SOLUTION:**

if \_\_name\_\_ == '\_\_main\_\_':

N = int(input())

m=list()

for i in range(N):

method,\*l=input().split()

k=list(map(int,l))

if len(k)==2:

q=[k[0]]

w=[k[1]]

elif len(k)==1:

q=[k[0]]

if method =='insert':

m.insert(q[0],w[0])

elif method == 'append':

m.append(q[0])

elif method == 'remove':

m.remove(q[0])

elif method =='print':

print(m)

elif method == 'reverse':

m.reverse()

elif method =='pop':

m.pop()

elif method == 'sort':

m.sort()

**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.Subtract")

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")

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

**SOLUTION :**

def concat(x, y):

return x + y

def reverse(s):

str = ""

for i in s:

str = i + str

return str

def slicing(w, x, y):

num = 0

num = slice(x, y)

return w[num]

print("Select operation.")

print("1.Concatenate")

print("2.Reverse")

print("3.Slice")

while True:

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

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

if choice == '1':

str1 = input("Enter string1: ")

str2 = input("Enter string2: ")

print("After concatenation", concat(str1, str2))

elif choice == '2':

str3 = input("Enter string1: ")

print("After reversing", reverse(str3))

elif choice == '3':

str3 = input("Enter string1: ")

# num1 = input("Enter starting index: ")

#num2 = input("Enter stopping index: ")

# num3 = input("Enter increment: ")

print(str3[1:3])

next\_operation = input("Let's do next operation? (yes/no): ")

if next\_operation == "no":

break

else:

print("Invalid Input")

**4) Why is Python a popular programming language?**

**SOLUTION:**

* Simplicity.
* A powerful toolbox.
* Development speed.
* Flexibility.
* Portability.
* A strong community.

**5) What are the other Frameworks that can be used with python?**

**SOLUTION:**

* Bottle.
* Flask.
* Django.
* Web2py.
* AIOHTTP.
* CherryPy.
* Dash.
* Falcon.

**6) Full form of WSGI.**

The **Web Server Gateway Interface** (WSGI, pronounced whiskey or WIZ-ghee) is a simple calling convention for web servers to forward requests to web applications or frameworks written in the Python programming language. It is used **to forward requests from a web server (such as Apache or NGINX) to a backend Python web application or framework**.