

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.

```
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)
```

Output:

```
inserted list [1, 3, 1, 5, 2, 6, 4, 1]
removed list [3, 1, 5, 2, 6, 4, 1]
appended list [3, 1, 5, 2, 6, 4, 1, 7]
sorted list [1, 1, 2, 3, 4, 5, 6, 7]
popped list [1, 1, 2, 3, 4, 5, 6]
reversed list [6, 5, 4, 3, 2, 1, 1]
```

2. write a calculator program in python

```
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("&quot;Select operation.&quot;")
print("&quot;1.Add&quot;")
print("&quot;2.Subtract&quot;")
print("&quot;3.Multiply&quot;")
print("&quot;4.Divide&quot;")
while True:
    choice = input("&quot;Enter choice(1/2/3/4): &quot;")
    if choice in ('&#39;1&#39;,, &#39;2&#39;,, &#39;3&#39;,, &#39;4&#39;):
        num1 = float(input("&quot;Enter first number: &quot;"))
        num2 = float(input("&quot;Enter second number: &quot;"))
        if choice == '&#39;1&#39;:
            print(num1, '&quot;+&quot;', num2, '&quot;=&quot;', add(num1, num2))
        elif choice == '&#39;2&#39;:
```

```

print(num1, &quot;-&quot;, num2, &quot;=&quot;, subtract(num1, num2))
elif choice == &#39;3&#39;:
print(num1, &quot;*&quot;, num2, &quot;=&quot;, multiply(num1, num2))
elif choice == &#39;4&#39;:
print(num1, &quot;/&quot;, num2, &quot;=&quot;, divide(num1, num2))
next_calculation = input(&quot;Let&#39;s do next calculation?
(yes/no): &quot;)
if next_calculation == &quot;no&quot;:
break
else:
print(&quot;Invalid Input&quot;)
```

Output:

Select operation.

- 1.Add
- 2.Subtract
- 3.Multiply
- 4.Divide

Enter choice(1/2/3/4): 3

Enter first number: 15

Enter second number: 14

15.0 * 14.0 = 210.0

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

3.write a program to concatenate , reverse and slice a string in python

```

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])
```

Output:

String 1: Hello

String 2: World

Concatenated two different strings: HelloWorld

The reversed string using a while loop is : dlroWolleH

HelloW

4. why python is popular programming language

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

5. what are the other frameworks that can be used with python?

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

5. Full Form of WSGI - Web Server Gateway Interface