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Python module 3 - Assignment

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.

Code:

```
a = int(input())
list = []
for i in range(0,a):
    ch = input().split()
    if ch[0] == "insert":
        list.insert(int(ch[1]),int(ch[2]))
    elif ch[0] == "print":
        print(list)
    elif ch[0] == "remove":
        list.remove(int(ch[1]))
    elif ch[0] == "append":
        list.append(int(ch[1]))
    elif ch[0] == "sort":
        list.sort()
    elif ch[0] == "pop":
        list.pop()
```

Output:

```
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\pradeep\Desktop\49621915012_Pradeep Rajadurai W.py =====
>>>
7
insert 1 10
insert 2 15
insert 3 5
insert 5 30
insert 4 35
sort
print
[5, 10, 15, 30, 35]
>>>
```

2. Write a Calculator program in Python?

Code:

```
while(True):
    print("\nCalculator:\n1.Add\n2.Subtract\n3.Multiplication\n4.Division\n5.Exit\n")
    print("Enter the choice...")
    n=int(input())
    if(n==5):
        break
    n1=int(input("Enter the First number\t:"))
    n2=int(input("Enter the second number\t:"))
    if(n==1):
        print("Answer : ",n1+n2)
    elif(n==2):
        print("Answer : ",n1-n2)
    elif(n==3):
        print("Answer : ",n1*n2)
    elif(n==4):
        print("Answer : ",n1/n2)
    else:
        break
```

Output:

```
IDLE Shell 3.10.0
File Edit Shell Debug Options Window Help
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:\Users\pradeep\Desktop\49621915012_Pradeep Rajadurai W_2.py =====

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
1
Enter the First number :5
Enter the second number :10
Answer : 15

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
2
Enter the First number :10
Enter the second number :5
Answer : 5

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
3
Enter the First number :5
Enter the second number :10
Answer : 50

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
4
Enter the First number :10
Enter the second number :5
Answer : 2.0

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
5
>>>
```

```
IDLE Shell 3.10.0
File Edit Shell Debug Options Window Help
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32
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>>>
===== RESTART: C:\Users\pradeep\Desktop\49621915012_Pradeep Rajadurai W_2.py =====

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
1
Enter the First number :5
Enter the second number :10
Answer : 15

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
2
Enter the First number :10
Enter the second number :5
Answer : 5

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
3
Enter the First number :5
Enter the second number :10
Answer : 50

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
4
Enter the First number :10
Enter the second number :5
Answer : 2.0

Calculator:
1.Add
2.Subtract
3.Multiplication
4.Division
5.Exit

Enter the choice...
5
>>>
```

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

Code:

```
s1="thatchaini"  
s2="muthulakshmi"  
print("String-1 : ",s1)  
print("String-2 : ",s2)  
print("Concatenate\t:",s1+s2)  
print("String reverse\t:",s1[::-1])  
print("String Slice\t:",s2[2:4])
```

Output:



```
IDLE Shell 3.10.0  
File Edit Shell Debug Options Window Help  
Python 3.10.0 (tags/v3.10.0:b494f59, Oct 4 2021, 19:00:18) [MSC v.1929 64 bit (AMD64)] on win32  
Type "help", "copyright", "credits" or "license()" for more information.  
>>>  
==== RESTART: C:\Users\pradeep\Desktop\49621915012_Pradeep Rajadurai W_3.py ====  
String-1 :  thatchaini  
String-2 :  muthulakshmi  
Concatenate :  thatchainimuthulakshmi  
String reverse :  iniahctaht  
String Slice :  th  
>>>
```