311519205018

ASSIGNMENT-12-09-22

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.

Answer:

```
print("Enter Number of commands: ",end=" ")

Number = int(input())

list=[];

for i in range(0,Number):

    print("Enter the command:")

    cmd=input().split();

    if cmd[0] == "insert":

        list.insert(int(cmd[1]),int(cmd[2]))

        print("Inserted")

    elif cmd[0] == "print":

        print(list)

    elif cmd[0] == "remove":

        list.remove(int(cmd[1]))

        print("removed")

    elif cmd[0] == "append":

        list.append(int(cmd[1]))

        print("appended")
    elif cmd[0] == "sort":
        list.sort();
        print("sorted")
    elif cmd[0] == "pop":
        list.pop();
        print("popped")
    else:
        list.reverse();
```

2) Write a Calculator program in Python?

Answer:

```
print("Select Any one operation.")
print("1.Addition")
print("2.Subtraction")
print("3.Multiplication")
print("4.Division")
print("5.Remainder(modulus)")
while True:
    operation = input("Enter any one option from - 1/2/3/4/5 : ")
    if operation in ('1', '2', '3', '4','5'):
        num1 = float(input("Enter first number: "))
        num2 = float(input("Enter second number: "))
        if operation == '1':
            print(num1, "+", num2, "=",num1+num2)
        elif operation == '2':
            print(num1, "-", num2, "=",num1-num2)
        elif operation == '3':
            print(num1, "*", num2, "=",num1*num2)

        elif operation == '4':

            print(num1, "/", num2, "=",num1/num2)

        else:

            print(num1, "%", num2, "=",num1%num2)

        next_calculation = input("Calculate again? (yes/no): ")

        if ((next_calculation == "no")or(next_calculation == "NO")or(next_calculation == "No")):

          print("completed calculation")

          break

    else:

        print("Invalid Input")
```

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

Answer:

```
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?

Answer:

- Python is efficient, fast, and reliable.
- Python has ease of writing.
- Python empowers custom automation.
- Python’s numerous libraries and frameworks.
- Emphasis on code readability.
- Python has shorter codes.
- Python offers versatile web-development solutions
- Python is well suited to data science and analytics.

Q5) What are the other Frameworks that can be used with python?

Answer:

- Django
- Falcon
- Giotto
- AIOHTTP
- Bottle
- CherryPy
- CubicWeb
- Dash

Q6) Full form of WSGI?

Answer:

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.