

Assignments

Python assignment - 1

Date	23 September 2022
Student Name	Nandhini V
Project Name	Project -Skill and Job recommender application
Maximum Marks	2 Marks

String Operations

Question:

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

Solution :

```
#!/usr/bin/env python3
```

```
# -*- coding: utf-8 -*-
```

```
"""
```

```
Created on Wed Sep 21 06:10:03 2022
```

```
@author: nandhini
```

```
"""
```

```
#Program for String concatenation
```

```
str1 = input("Enter the first string: ")
```

```
str2 = input("Enter the second string: ")
```

```
new_str = str1 + str2
```

```
print("Concatenated string is :",new_str) #Prints the result of concatenation
```

```
#Code for String Slicing
```

```
length = len(new_str)
```

```
slicey = int(input("Enter the number of characters to be sliced :"))
```

```
if(length<slicey):
```

```
    print("Length is exceeded")
```

```
else:
```

```
    new_str = new_str[0:slicey]
```

```
    print("Sliced string is :",new_str) #Result for slicing
```

```
#Code for String reverse
```

```
print("Reversed string is : ",new_str[::-1]) #Result for String reverse
```

```

1  #!/usr/bin/env python3
2  # -*- coding: utf-8 -*-
3  """
4  Created on Wed Sep 21 06:10:03 2022
5
6  @author: nandhini
7  """
8
9  #Program for String concatenation
10 str1 = input("Enter the first string: ")
11 str2 = input("Enter the second string: ")
12 new_str = str1 + str2
13
14 print("Concatenated string is :",new_str) #Prints the result of concatenation
15
16 #Code for String Slicing
17 length = len(new_str)
18
19 slicey = int(input("Enter the number of characters to be sliced :"))
20 if(length<slicey):
21     print('Length is exceeded')
22 else:
23     new_str = new_str[0:slicey]
24     print('Sliced string is :',new_str) #Result for slicing
25
26 #Code for String reverse
27
28 print("Reversed string is : ",new_str[::-1]) #Result for String reverse
29
30
31

```

```

Enter the first string: Hello
Enter the second string: World
Concatenated string is : HelloWorld
Enter the number of characters to be sliced :8
Sliced string is : HelloWor
Reversed string is : roWolleH

```

Basic Calculator

Question:

Write a Calculator program in Python?

Solution:

```

#!/usr/bin/env python3
# -*- coding: utf-8 -*-
"""

```

Created on Wed Sep 20 11:10:03 2022

```

@author: nandhini
"""

```

Calculator program in python

```

#Calculator function
def calculate(a, b, c):
    if(c == '+'):
        return a+b
    elif(c == '-'):
        return a-b
    elif(c == '*'):
        return a*b
    elif(c == '/'):
        return a//b
    else:
        return null

```

#Main program

```

first = int(input("Enter first number : ")) #Getting first number
second = int(input("Enter second number : ")) #Getting second number

operator = input("Enter the operation : ")[0]

print("Your result is " , calculate(first,second,operator))

```

The screenshot shows a Python IDE with a dark theme. On the left, the code editor displays a Python script for a calculator. The script includes a docstring with metadata, a function definition for 'calculate', and a main program section. On the right, the output console shows the program's execution with user inputs and the resulting output.

```

1  #!/usr/bin/env python3
2  # -*- coding: utf-8 -*-
3  """
4  Created on Wed Sep 20 11:10:03 2022
5  @author: nandhini
6
7  """
8
9  # Calculator program in python
10
11 #Calculator function
12 def calculate(a, b, c):
13     if(c == '+'):
14         return a+b
15     elif(c == '-'):
16         return a-b
17     elif(c == '*'):
18         return a*b
19     elif(c == '/'):
20         return a//b
21     else:
22         return null
23
24 #Main program
25 first = int(input("Enter first number : ")) #Getting first number
26 second = int(input("Enter second number : ")) #Getting second number
27
28 operator = input("Enter the operation : ")[0]
29
30 print("Your result is " , calculate(first,second,operator))
31

```

Output console:

```

Enter first number : 32
Enter second number : 12
Enter the operation : -
Your result is  20

```

List operations

Questions:

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.

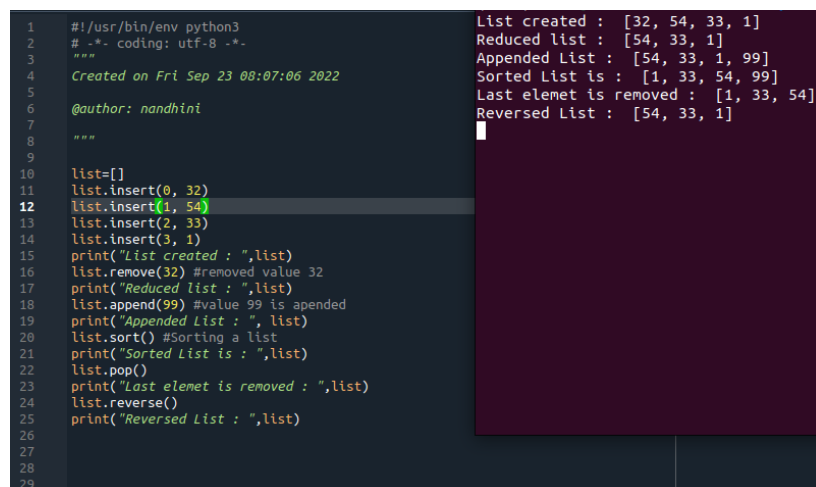
Initialize your list and read in the value of followed by lines of commands where each command will be of the types listed above. Iterate through each command in order and perform the corresponding operation on your list.

Solution:

```
#!/usr/bin/env python3
# -*- coding: utf-8 -*-
"""
Created on Fri Sep 23 08:07:06 2022
```

```
@author: nandhini
"""
```

```
list=[]
list.insert(0, 32)
list.insert(1, 54)
list.insert(2, 33)
list.insert(3, 1)
print("List created : ",list)
list.remove(32) #removed value 32
print("Reduced list : ",list)
list.append(99) #value 99 is apended
print("Appended List : ", list)
list.sort() #Sorting a list
print("Sorted List is : ",list)
list.pop()
print("Last elemet is removed : ",list)
list.reverse()
print("Reversed List : ",list)
```



```
1  #!/usr/bin/env python3
2  # -*- coding: utf-8 -*-
3  """
4  Created on Fri Sep 23 08:07:06 2022
5
6  @author: nandhini
7
8  """
9
10 list=[]
11 list.insert(0, 32)
12 list.insert(1, 54)
13 list.insert(2, 33)
14 list.insert(3, 1)
15 print("List created : ",list)
16 list.remove(32) #removed value 32
17 print("Reduced list : ",list)
18 list.append(99) #value 99 is apended
19 print("Appended List : ", list)
20 list.sort() #Sorting a list
21 print("Sorted List is : ",list)
22 list.pop()
23 print("Last elemet is removed : ",list)
24 list.reverse()
25 print("Reversed List : ",list)
26
27
28
29
```

List created : [32, 54, 33, 1]
Reduced list : [54, 33, 1]
Appended List : [54, 33, 1, 99]
Sorted List is : [1, 33, 54, 99]
Last elemet is removed : [1, 33, 54]
Reversed List : [54, 33, 1]

Why is Python a popular programming language?

Python is a general-purpose language that is easy to learn and use. Due to its popularity, there is a big and helpful community. Also, Python is backed up by big companies like Google, Amazon, and Facebook. Python is suggested as the first programming language to learn due to its English-like syntax.

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

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

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.