

## Practice:

### String & Pattern Problems

1. Reverse a given string without using built-in reverse functions.

```
1  str = str(input("string is : "))
2  print(str[::-1])
3
```

PROBLEMS	OUTPUT	DEBUG CONSOLE	TERMINAL	PORTS
<pre>PS C:\Users\shaik&gt; &amp; C:/Python312/python.exe "c:/Users/ string is : HELLO WORLD DLROW OLLEH PS C:\Users\shaik&gt; </pre>				

2. Check if string is a palindrome.

```
1  txt = str(input("string is: "))
2  rev_txt = (txt[::-1])
3  if txt == rev_txt:
4      |   print("palindrome")
5  else:
6      |   print("not a palindrome")
7
8
```

PROBLEMS	OUTPUT	DEBUG CONSOLE	TERMINAL	PORTS
<pre>PS C:\Users\shaik&gt; &amp; C:/Python312/python.exe "c:/Users/ string is: racecar palindrome PS C:\Users\shaik&gt; &amp; C:/Python312/python.exe "c:/Users/ string is: hello not a palindrome</pre>				

3. Count the number of vowels and consonants in a string.

```
1 text = input("Enter a string: ")
2 vowels = "aeiou"
3 vowel_count = 0
4 consonant_count = 0
5 for char in text:
6     if char in vowels:
7         vowel_count += 1
8     else:
9         consonant_count += 1
10    print("Vowels:", vowel_count)
11    print("Consonants:", consonant_count)
12
```

PROBLEMS	OUTPUT	DEBUG CONSOLE	TERMINAL	PORTS
PS C:\Users\shaik> & C:/Python312/python.exe "c:/Users/shai Enter a string: python Vowels: 0 Consonants: 1 Vowels: 0 Consonants: 2 Vowels: 0 Consonants: 3 Vowels: 0 Consonants: 4 Vowels: 1 Consonants: 5				

4. Remove all spaces from given string.

```
1 txt = input("Enter a string: ")
2 spaces = txt.replace(" ", "")
3 print("String without spaces:", spaces)
4
```

PROBLEMS	OUTPUT	DEBUG CONSOLE	TERMINAL	PORTS
PS C:\Users\shaik> & C:/Python312/python.exe "c:/Users/ Enter a string: Remove all spaces String without spaces: Removeallspaces				

5. Count the frequency of each character in a string.

```
1 text = input("Enter a string: ")
2 freq = {}
3 for char in text:
4     freq[char] = freq.get(char, 0) + 1
5 for char, count in freq.items():
6     print(f"'{char}': {count}")
7
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PORTS

```
PS C:\Users\shaik> & C:/Python312/python.exe "c:/Users
Enter a string: Apple
'A': 1
'p': 2
'l': 1
'e': 1
```