

1. String & Pattern Problems

1. Reverse a given string without using built-in reverse functions.
2. Check if a string is a palindrome.
3. Count the number of vowels and consonants in a string.
4. Remove all spaces from a given string.
5. Count the frequency of each character in a string.

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

```
1 str = input("Given string : ")
2 print("Reverse string: %s" %str[::-1])
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\venkat\Python-programs> & 'c:\Users\venkat\AppData\Local\Programs\Python\Python313\python.exe' 'c:\Users\venkat\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '64152' '--' 'C:\Users\venkat\Python-programs\reverse_string.py'
Given string : Hello_world
Reverse string: dlrow_olleH
```

2.Check if a string is a Palindrome.

```
1
2 s = input("give a string : ")
3 reverse = s[::-1]
4 if reverse == s :
5     print("it is a paindrome.")
6 else :
7     print("it is not a palindrome.")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
PS C:\Users\venkat\Python-programs> & 'c:\Users\venkat\AppData\Local\Programs\Python\Python313\python.exe' 'c:\Users\venkat\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '64221' '--' 'C:\Users\venkat\Python-programs\palindrome_checker.py'
give a string : MOM
it is a paindrome.
```

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

```
1  str = input("Given string: ")
2  vo_count = 0
3  co_count = 0
4  for i in str:
5      if i in ("AEIOUaeiou"):
6          vo_count+=1
7  print("vowel count : %d"%vo_count)
8  for i in str:
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\venkat\Python-programs> & 'c:\Users\venkat\AppData\Local\Programs\Python\Python313\python.exe' 'c:\Users\venkat\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '64286' '--' 'C:\Users\venkat\Python-programs\practice.py'

Given string: Running
vowel count : 2
consonent count:5

4.Remove all spaces from a given string.

```
1  str = input("Given string: ")
2  l=list(str)
3  no_sp_str=" "
4  for i in l:
5      if i!=" ":
6          no_sp_str=no_sp_str+i
7  print("string without spaces: %s"%no_sp_str)
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Python Debug Console + - [] [x] [] [x]

PS C:\Users\venkat\Python-programs> & 'c:\Users\venkat\AppData\Local\Programs\Python\Python313\python.exe' 'c:\Users\venkat\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '64322' '--' 'C:\Users\venkat\Python-programs\practice.py'

Given string: E a t i n g
string without spaces: Eating

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

```
1 str= input("input string: ")
2 freq={}
3 for i in str:
4     if i in freq:
5         freq[i]+=1
6     else:
7         freq[i]=1
8 print("Frequency: ")
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Python Debug Console + - □ □ ... [] X

```
PS C:\Users\venkat\Python-programs> & 'c:\Users\venkat\AppData\Local\Programs\Python\Python313\python.exe' 'c:\Users\venkat\.vscode\extensions\ms-python.debugpy-2025.10.0-win32-x64\bundled\libs\debugpy\launcher' '64432' '--' 'C:\Users\venkat\Python-programs\practice.py'
```

```
input string: Animal
```

```
Frequency:
```

```
A:({'A': 1, 'n': 1, 'i': 1, 'm': 1, 'a': 1, 'l': 1}, {'A'})
```

```
n:({'A': 1, 'n': 1, 'i': 1, 'm': 1, 'a': 1, 'l': 1}, {'n'})
```

```
i:({'A': 1, 'n': 1, 'i': 1, 'm': 1, 'a': 1, 'l': 1}, {'i'})
```

```
m:({'A': 1, 'n': 1, 'i': 1, 'm': 1, 'a': 1, 'l': 1}, {'m'})
```

```
a:({'A': 1, 'n': 1, 'i': 1, 'm': 1, 'a': 1, 'l': 1}, {'a'})
```

```
l:({'A': 1, 'n': 1, 'i': 1, 'm': 1, 'a': 1, 'l': 1}, {'l'})
```