

PRACTICAL 2

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| 2 | <p>String Manipulation</p> <p>Create a program to analyze a user-provided string.</p> <ul style="list-style-type: none">• Count the occurrences of each vowel.• Reverse the string using slicing.• Check if the string is a palindrome.• Use string methods to convert the string to uppercase, lowercase, and title case. |
|---|---|

=====

```
"String Manipulation
```

```
Create a program to analyze a user-provided string.
```

- Count the occurrences of each vowel.
- Reverse the string using slicing.
- Check if the string is a palindrome.
- Use string methods to convert the string to uppercase, lowercase, and title case."

```
# Get input from the user
```

```
text = input("Enter a string: ")
```

```
# Convert to lowercase for consistent processing
```

```
lower_text = text.lower()
```

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Count vowels

```
a_count = lower_text.count('a')
```

```
e_count = lower_text.count('e')
```

```
i_count = lower_text.count('i')
```

```
o_count = lower_text.count('o')
```

```
u_count = lower_text.count('u')
```

```
print("Vowel counts:")
```

```
print("a:", a_count)
```

```
print("e:", e_count)
```

```
print("i:", i_count)
```

```
print("o:", o_count)
```

```
print("u:", u_count)
```

Reverse the string using slicing

```
reversed_text = text[::-1]
```

```
print("Reversed string:", reversed_text)
```

Check if the string is a palindrome (ignoring case)

```
if lower_text == reversed_text.lower():
```

```
    print("The string is a palindrome.")
```

```
else:
```

```
    print("The string is not a palindrome.")
```

Convert and display different cases

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```
print("Uppercase:", text.upper())
```

```
print("Lowercase:", text.lower())
```

```
print("Title case:", text.title())
```

```
>>> ===== RESTART: D:/1400/PYTHON PRACTICAL.py =====  
Enter a string: Krishna  
Vowel counts: {'a': 1, 'e': 0, 'i': 1, 'o': 0, 'u': 0}  
Reversed string: anhsirK  
The string is not a palindrome.  
Uppercase: KRISHNA  
Lowercase: krishna  
Title case: Krishna  
>>> |
```