python-programming-lab-4

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Python Programming - 2101CS405

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Lab - 4

1 String

1.0.1 01) WAP to check given string is palindrome or not.

[4]:
```
str = input("Enter String")
reversed_str = str[::-1];

if str == reversed_str:
    print("String is Palindrome")
else:
    print("String is not palindrome")
```

```
String is not palindrome
```

1.0.2 02) WAP to reverse the words in given string.

[10]:
```
str_input = input("Enter a string: ")

words = str_input.split()

reversed_words = ' '.join(reversed(words))

print("Reversed Words:", reversed_words)
```

```
Reversed Words: Ritesh is name My
```

1.0.3 03) WAP to remove ith character from given string

[11]:
```
str = input("Enter String")
a = int(input("Enter the index of  character to remove:"));

if str=="":
    print(f"String is Empty")
else:
    modified_string = str[:a]+str[a+1:]
    print(f"Original String: {str}")
    print(f"modified String:{modified_string}")
```

```
Original String: ritesh
modified String:riesh
```

1.0.4 04) WAP to find length of String without using len function.

[13]:
```
str = input("Enter String: ");
count = 0

for i in str:
    count = count + 1
print(f"Enter String:{str}")
print(f"Length of String: {count}")
```

```
Enter String:Ritesh
Length of String: 6
```

1.0.5 05) WAP to print even length word in string.

[15]:
```
str = input("Enter String:");

words = str.split();

print("Even Length Words in String:");
for word in words:
    if len(word)%2==0:
        print(word);
```

```
Even Length Words in String:
Meet
Ritesh
Prit
```

1.0.6 06) WAP to count numbers of vowels in given string.

[17]:
```
str = input("Enter String:");

vowel = {'a','e','i','o','u'}

count = 0

for i in str.lower():
 if i in vowel:
     count = count + 1

print(f"Number Of vowels in String: {count}")
```

```
Number Of vowels in String: 0
```

1.0.7 07) WAP to convert given array to string.

[14]:
```
my_array = ['apple', 'banana', 'cherry', 'date']

result_string = ' '.join(my_array)

print("Resulting String:", result_string)
```

```
Resulting String: apple banana cherry date
```

1.0.8 01) WAP to find out duplicate characters in given string.

[30]:
```
str_input = input("Enter String: ")

print("String: ",str_input)

char_count = {}

for ch in str_input:
    if ch in char_count:
        char_count[ch]+=1
    else:
        char_count[ch]=1

print(char_count)
for a in char_count:
    if char_count.get(a)>1:
        print(a)
```

```
String:  Ritesh Lakhani
{'R': 1, 'i': 2, 't': 1, 'e': 1, 's': 1, 'h': 2, ' ': 1, 'L': 1, 'a': 2, 'k': 1,
'n': 1}
```

```
i
h
a
```

1.0.9 02) WAP to capitalize the first and last character of each word in a string.

[2]:
```
str_input = input("Enter String:")
words = str_input.split();

capitalized_words = [word[0].upper() + word[1:-1] + word[-1].upper() for word␣
 ↪in words]

result = ' '.join(capitalized_words)

print(result)
```

```
RitesH ShubhaM HarD HarsH ShruT
```

1.0.10 03) WAP to find Maximum frequency character in String.

[3]:
```
str_input = input("Enter String: ")

char_frequency = {}

for char in str_input:
    char_frequency[char] = char_frequency.get(char, 0) + 1

max_char = max(char_frequency, key=char_frequency.get)

print(f"The character '{max_char}' has the maximum frequency of␣
 ↪{char_frequency[max_char]} times.")
```

```
The character 'h' has the maximum frequency of 5 times.
```

1.0.11 04) WAP to find Minimum frequency character in String.

[6]:
```
str_input = input("Enter String: ")

char_frequency = {}

for char in str_input:
    char_frequency[char] = char_frequency.get(char, 0) + 1

min_char = min(char_frequency, key=char_frequency.get)

print(f"The character '{min_char}' has the minimum frequency of␣
 ↪{char_frequency[min_char]} times.")
```

```
The character 't' has the minimum frequency of 1 times.
```

1.0.12 05) WAP to check if a given string is binary string or not

[8]:
```python
str_input = input("Enter a string: ")

valid_binary = True

for char in str_input:
    if char not in '01':
        valid_binary = False
        break

if valid_binary:
    print("The entered string is a valid binary string.")
else:
    print("The entered string is not a valid binary string.")
```

```
The entered string is not a valid binary string.
```