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Python Programming - 2101CS405

Lab - 4

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String

In [ ]:
```
# string mehods
# append()  Adds an element at the end of the list
phones= ['iphone', 'samsung', 'mi']
phones.append("oppo")
# clear()   Removes all the elements from the list
phones = ['iphone', 'samsung', 'mi','oppo']
phones.clear()
# copy()    Returns a copy of the list
phones = ['iphone', 'samsung', 'mi','oppo']
x = phones.copy()
# count()   Returns the number of elements with the specified value
# extend()  Add the elements of a list (or any iterable), to the end of the
# index()   Returns the index of the first element with the specified value
# insert()  Adds an element at the specified position
# pop() Removes the element at the specified position
# remove()  Removes the first item with the specified value
# reverse() Reverses the order of the list
#sort()
```

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

In [3]:
```
str=input("Enter string to check palindrome")
newStr=str[::-1]
if(str.lower()==newStr.lower()):
    print(f"{str} is palindrome")
else:
    print(f"{str} is not palindrome")
```

```
Enter string to check palindromemadam
madam is palindrome
```

02) WAP to reverse the words in given string.

In [25]:
```
str=input("Enter string ")
listOfStr=str.split(" ")
temp=""
for i in listOfStr:
    newStr=i[::-1]
    temp+=newStr+" "
print(temp)
```

```
Enter string how are you
woh era uoy
```

03) WAP to remove ith character from given string

In [30]:
```
str=input("Enter String ")
n=int(input("Enter number to remove cherecter "))
print(str.replace(str[n],""))
```

```
Enter String sachin
Enter number to remove cherecter 1
schin
```

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

In [34]:
```
str=input("Enter String ")
count=0
for i in str:
    count=count+1
print(f"{str} length is {count}")
```

```
Enter String sachin
sachin length is 6
```

05) WAP to print even length word in string.

In [39]:
```
str=input("Enter String ")
temp=str.split()
for i in range(0,len(temp)):
    if(len(temp[i])%2==0):
        print(temp[i],end=" ")
```

```
Enter String sach patadiyaa
sach
```

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

In [43]:
```
str=input("Enter String ")
count=0
for i in str:
    if i=="a"or i=="e" or i=="i" or i=="o" or i=="u":
        count=count+1
print(count)
```

```
Enter String sachin
2
```

07) WAP to convert given array to string.

In [47]:
```
list=["sachin","patadiya"]
str=""
str=" ".join(list)
print(str)
```

```
sachin patadiya
```

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

In [10]:
```
def find_duplicates(str):
    seen = set()
    duplicates = set()

    for char in str:
        if char in seen:
            duplicates.add(char)
        else:
            seen.add(char)

    return duplicates

string=input("Enter string to check duplicate cherecter :")
duplicate_numbers = find_duplicates(string)

print("duplicate cherecter is :", duplicate_numbers)
```

```
Enter string to check duplicate cherecter :saachinn
duplicate cherecter is : {'a', 'n'}
```

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

In [59]:
```
temp=input("Enter String ")
newStr=""
list=temp.split(" ")
for i in list:
    i=i.replace(i[0],i[0].upper())
    i=i.replace(i[-1],i[-1].upper())
    newStr=newStr+i+" "
print(newStr)
```

```
Enter String sachin patadiya
SachiN PAtAdiyA
```

03) WAP to find Maximum frequency character in String.

In [12]:
```
def max_frequency_char(input_string):
    char_frequency = {}

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

    max_char = max(char_frequency, key=char_frequency.get)
    max_frequency = char_frequency[max_char]

    return max_char, max_frequency

str=input("Enter string to check Maximum frequency character : ")
result_char, result_frequency = max_frequency_char(str)

print(f"The character with the maximum frequency in the string is '{result_
```

```
Enter string to check Maximum frequency character : sachinpatadiya
The character with the maximum frequency in the string is 'a' with freque
ncy 4.
```

04) WAP to find Minimum frequency character in String.

In [5]:
```
def min_frequency_char(input_string):
    char_frequency = {}

    for char in input_string:
        if char in char_frequency:
            char_frequency[char] += 1
        else:
            char_frequency[char] = 1

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

    return min_char


input_string =input("Enter String to check  Minimum frequency character : "
result = min_frequency_char(input_string)
print(f"The character with minimum frequency is: {result}")
```

```
Enter String to check  Minimum frequency character : sachinpatadiya
The character with minimum frequency is: s
```

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

In [11]:
```
def is_binary_string(input_string):
    valid_digits = {'0', '1'}

    for char in input_string:
        if char not in valid_digits:
            return False

    return True

str=input("Enter string to check binery or not : ")
if is_binary_string(str):
    print(f"{str} is a binary string.")
else:
    print(f"{str} is not a binary string.")
```

```
Enter string to check binery or not : 010101010
010101010 is a binary string.
```