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2. Write a program to perform following operations on string

1. Reverse string.
2. Count vowels and consonants in a string.
3. Count the number of letters in a word.
4. Convert lower letter to upper and upper letter to lower in a string.
5. Count lower, upper, numeric and special characters in a string.

**Code:**

```
str = "Python_Practical_2"
```

```
#Reverse string
```

```
print(str[::-1])
```

```
#count vowels and consonants
```

```
vowels=0
```

```
consonants=0
```

```
for i in str:
```

```
    if(i == 'a' or i == 'e' or i == 'i' or i == 'o' or i == 'u' or
```

```
       i == 'A' or i == 'E' or i == 'I' or i == 'O' or i == 'U' ):
```

```
        vowels=vowels+1#vowel counter is incremented by 1
```

```
    else:
```

```
        consonants=consonants+1
```

```
print("The number of vowels:",vowels)
```

```
print("The number of consonant:",consonants)
```

```
#count number of letters
```

```
print("Number of letters in string:",len(str))
```

```
#convert cases
```

```
print("String after case conversion:",str.swapcase())
```

```
#Count lower, upper, numeric and special characters
```

```
upper, lower, num, special=0,0,0,0;
```

```
for i in range(len(str)):
```

```
    if(str[i]>='A' and str[i]<='Z'):
```

```
        upper+=1
```

```
    elif(str[i]>='a' and str[i]<='z'):
```

```
        lower+=1
```

```
    elif(str[i]>='1' and str[i]<='9'):
```

```
        num+=1
```

```
    else:
```

```
special+=1  
print("Upper case letters: ",upper)  
print("Lower case letters: ",lower)  
print("numbers: ",num)  
print("Special characters: ",special)
```

**Output:**

```
2_lacitcarP_nohtyP  
The number of vowels: 4  
The number of consonant: 14  
Number of letters in string: 18  
String after case conversion: pYTHON_pRACTICAL_2  
Upper case letters: 2  
Lower case letters: 13  
numbers: 1  
Special characters: 2
```