EX.NO: 05	STRING MANIPULATION
DATE:	

PROGRAM 1:

Username Validator You're developing a login system. A username must only contain alphabets and numbers, and should not exceed 12 characters.
Write a function that checks whether a given username is valid or not. Return True if it's valid, otherwise False

```
username=input("Enter the valid username:")
def is_valid_username(username):
    if len(username) > 12:
        return False
    if username.isalnum():
        return True
    else:
        return False
is_valid_username(username)
```

OUTPUT:

```
Enter the valid username:Abcdefghij12
True
```

PROGRAM 2:

Email Masking for Privacy . You need to mask part of an email address when displaying it publicly to protect user privacy.
Write a program that takes an email like john.doe@example.com and returns a masked version like jo****@example.com.

```
email=input("enter ur email:")
def mask_email(email):
    name, domain = email.split("@")
    masked = name[:2] + "****"
    return masked + "@" + domain

print(mask_email(email))
```

OUTPUT:

```
enter ur email:mount@fuji.com
mo****@fuji.com
```

PROGRAM 3:

Detecting Palindromes You are building a text analyzer app. One of the features is to detect if a word or phrase is a palindrome (ignoring spaces and punctuation).
Write a function that checks whether a given string is a palindrome, ignoring case, spaces, and punctuation.

```
text=input("Enter a string:")
def is_palindrome(text):
    text = text.lower()
    cleaned = ''.join(char for char in text if char.isalnum())
    print(text)
    return cleaned == cleaned[::-1]

print(is_palindrome(text))
```

OUTPUT:

```
Enter a string:race car
race car
True
```

PROGRAM 4:

Text Formatter for News Headlines - You're building a news app that receives article titles in random casing. You need to format the titles so each word starts with a capital letter.
Write a function that converts a given string like "breaKing news: python is fun" to "Breaking News: Python Is Fun"

```
string=input("Enter a sentence:")
def format_sentence(string):
    words = string.split()
    formatted_words = [word.capitalize() for word in words]
    formatted_string = ' '.join(formatted_words)
    return formatted_string
print(format_sentence(string))
```

OUTPUT:

```
Enter a sentence:breaKing news: python is fun
Breaking News: Python Is Fun
```

PROGRAM 5:

Word Frequency Counter In a blog analysis tool, you need to find out how often each word appears in a paragraph.

```
text = input("Enter the paragraph: ")
words = text.split()
for word in set(words):
    print(word, ":", words.count(word))
```

OUTPUT:

```
Enter the paragraph: there is something over there
something : 1
is : 1
over : 1
there : 2
```

PROGRAM 6:

Write a program that takes a block of text and prints

```
text = input("Enter a block of text: ")
print("\nYou entered:")
print(text)
```

OUTPUT:

```
Enter a block of text: the sky is blue!

You entered:
the sky is blue!
```

DEPARTMENT OF CSE		
Program	10	
Output	5	
Viva-Voce	5	
Total	20	