Assignment 6:Strings

Date:14.11.2023
Assign sub no:1

Aim:

To solve the given program using python programming language.
In cryptography, a Caesar cipher, also known as Caesar's cipher, the shift cipher, Caesar's code or Caesar shift, is one of the simplest and most widely known encryption techniques. It is a type of substitution cipher in which each letter in the plaintext is replaced by a letter some fixed number of positions up the alphabet. For example, with a right shift of 3, D would be replaced by G, E would become H, and Z would be C and so on. The method is named after Julius Caesar, who used it in his private correspondence. Sample Input: RIVER Key:13 Output: EVIRE

Pseudo code:

1.Start
2.Input str1,encode_no
3.Define encode_str=””
4.when I in str1, a=ord(i) and if a+encode_no>=91 b=(a%90)+64 otherwise b=a+encode_no. Then do encode_str+=chr(b)
5.Output encode_str

Coding:

```
str1=input("Enter the string:")
encode_str=""
encode_no=int(input("Enter the key value:"))
for i in str1:
```

```
        a=ord(i)
        if a+encode_no>=91:
                b=(a%90)+64
        else:
                b=a+encode_no
        encode_str+=chr(b)
print(encode_str)
```

Input:

Enter the string:ABCD
Enter the key:13

Enter the string:Santhosh

Enter the key:4

Output:

NOPQ

WGTZNUYN

```python
str1=input("Enter the string:")
encode_str=""
encode_no=int(input("Enter the key value:"))
for i in str1:
        a=ord(i)
        if a+encode_no>=91:
                b=(a%90)+64
        else:
                b=a+encode_no
        encode_str+=chr(b)
print(encode_str)
```

```
pglab1@pglab1-38:~$ python3 cryp.py
Enter the string:ABCD
Enter the key value:13
NOPQ
pglab1@pglab1-38:~$ python3 cryp.py
Enter the string:Santhosh
Enter the key value:4
WGTZNUYN
```

Date:14.11.2023
Assign sub no:2

Aim:

To solve the given program using python programming language.

Write a Python program to convert a given string to Snake case. (Hint: use Join()]

Pseudo code:

1.Start
2.Input str1
3.Do str2=str1.split(" ")
4.Do str3="_".join(str2)
5.Output str3.lower()

Coding:

```
str1=input(("Enter the string:"))
str2=str1.split(" ")
str3="_".join(str2)
print("The snake case:",str3.lower())
```

Input:

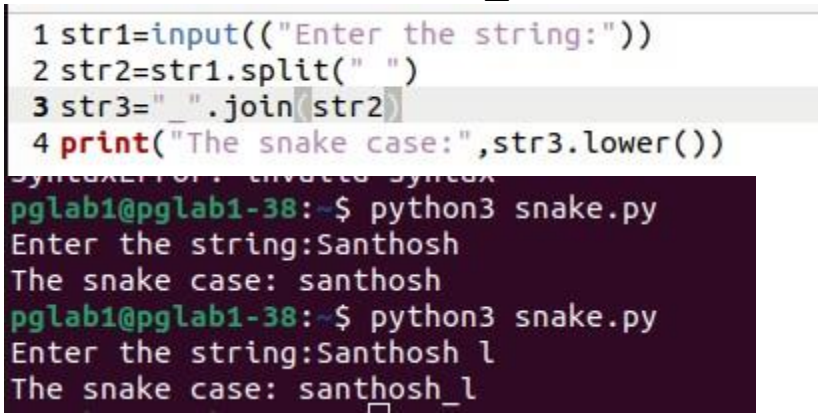
Enter the string:Santhosh

Enter the string:Santhosh l

Output:

The snake case:santhosh

The snake case:santhosh_l



Date:14.11.2023
Assign sub no:3

Aim:

To solve the given program using python programming language.

Write a program in python that accepts a string to set up passwords. The program should check the validity of the

password. The password is considered valid if it satisfies the following criteria. A. The password should be at least 8 characters long. B. The password should contain at least one uppercase letter. C. The password should contain at least one lowercase letter. D. The password should contain at least one digit. E. The password should contain at least one special character from the following @, #, $, %, &, *, +, -, =, ?, _

Pseudo code:

1.Start
2.Input s
3.Assign l, u, p, d ,count= 0, 0, 0, 0,0
4.When z in s do count+=1 then assign caps="ABCDEFGHIJKLMNOPQRSTUVWXYZ", smalls="abcdefghijklmnopqrstuvwxyz", specialchar="@#$%&*+-=?_" and digits="0123456789"
5.When count>=8, then when i in s then when i in smalls then do l+=1 or else when i in caps then do u+=1,when i un digits the do d+=1 or else when i in specialchar the do p+=1
6.When l>=1 and u>=1 and p>=1 and d>=1 and l+p+u+d==len(s) then display “Vaild password” otherwise display “Invalid password”

Coding:

```
l, u, p, d = 0, 0, 0, 0
print("Set up new password")
s =input("Enter new password:")
count=0
for z in s:
        count+=1
caps="ABCDEFGHIJKLMNOPQRSTUVWXYZ"
```

```
smalls="abcdefghijklmnopqrstuvwxyz"
specialchar="@#$%&*+-=?_"
digits="0123456789"
if (count >= 8):
   for i in s:

      if (i in smalls):
         l+=1

      if (i in caps):
         u+=1



      if (i in digits):
         d+=1

      if(i in specialchar):
         p+=1
if (l>=1 and u>=1 and p>=1 and d>=1 and l+p+u+d==len(s)):
   print("Valid Password")
else:
   print("Invalid Password")
```

Input:

Set up new password
New password:Santhosh@2005

Set up new password
New password:ssssssss

Output:

Valid password

Invalid password

```
l, u, p, d = 0, 0, 0, 0
print("Set up new password")
s =input("Enter new password:")
count=0
for z in s:
        count+=1
caps="ABCDEFGHIJKLMNOPQRSTUVWXYZ"
smalls="abcdefghijklmnopqrstuvwxyz"
specialchar="@#$%&*+-=?_"
digits="0123456789"
if (count >= 8):
    for i in s:

        if (i in smalls):
            l+=1

        if (i in caps):
            u+=1


        if (i in digits):
            d+=1

        if(i in specialchar):
            p+=1
if (l>=1 and u>=1 and p>=1 and d>=1 and l+p+u+d==len(s)):
    print("Valid Password")
else:
    print("Invalid Password")

```

```
pglab1@pglab1-38:~$ python3 pass.py
Set up new password
Enter new password:Santhosh@2005
Valid Password
pglab1@pglab1-38:~$ python3 pass.py
Set up new password
Enter new password:ssssssss
Invalid Password
```