**PROGRAM CODE:**

def substring(s1,s2):

print('The no of occurences are ',s1.count(s2))

for i in range(len(s1)):

if s1[i]==s2[0]:

print('Found at index ',i)

p='vas hello vc hello'

print('The string is ',p)

q="hello"

print('The substring is ',q)

substring(p,q)

**OUTPUT:**

The string is vas hello vc hello

The substring is hello

The no of occurences are 2

Found at index 4

Found at index 13

**PROGRAM CODE:**

def strpal(word):

str2=word[::-1]

if word==str2:

return ('it is a palindrome')

else:

return('it is not a palindrome')

str1=input('enter a word ')

print(strpal(str1))

**OUTPUT:**

enter a word malayalam

it is a palindrome

enter a word table

it is not a palindrome

**PROGRAM CODE:**

str1=input('enter a message ')

str2=''

key=int(input('enter key '))

for i in str1:

code=ord(i)

str2=str2+chr(code+key)

print(str2)

**OUTPUT:**

enter a message HelloWorld

enter key 3

KhoorZruog

**PROGRAM CODE:**

print('1.no of occurrences/2.index of occurrence/',end='')

print('3.right justify/4.Capitalize/5.alphanumeric check')

ch=int(input('enter choice '))

if (ch==1):

str1=input('enter string ')

sub=input('enter substring ')

print ('The no of occurences are ',str1.count(sub))

elif (ch==2):

str1=input('enter string ')

sub=input('enter substring ')

print ('The substring is found at index ',str1.rfind(sub))

elif (ch==3):

str1=input('enter string ')

print (str1.rjust(5))

elif (ch==4):

str1=input('enter string ')

print (str1.capitalize())

elif (ch==5):

str1=input('enter string ')

a=str1.isalnum()

if a==True:

print('The string is alphanumeric')

else:

print('Invalid choice')

**OUTPUT:**

1.no of occurrences/2.index of occurrence/3.right justify/4.Capitalize/5.alphanumeric check

enter choice 1

enter string geetha good morning geetha

enter substring geetha

The no of occurences are 2

enter choice 2

enter string The movie was fantastic

enter substring movie

The substring is found at index 4

enter choice 3

enter string cat

cat

enter choice 4

enter string breakfast

Breakfast

enter choice 5

enter string alpha123

True

**PROGRAM CODE:**

import string

print('1.case of string /2.octal & hexadecimal digits')

ch=int(input('Enter choice '))

if ch==1:

str=input('Enter string ')

x=str.replace(' ','')

for i in x:

a=i in string.ascii\_lowercase

if a==False:

break

if a==True:

print('In lower case')

else:

print('Not in lower case')

elif ch==2:

print('The octal digits are ',string.octdigits)

print('The hexadecimal digits are ',string.hexdigits)

else:

print('Invalid choice')

**OUTPUT:**

1.case of string /2.octal & hexadecimal digits

Enter choice 1

Enter string good morning

In lower case

Enter choice 1

Enter string GOOD EVENING

Not in lower case

Enter choice 2

The octal digits are 01234567

The hexadecimal digits are 0123456789abcdefABCDEF