1. **A string is said to be symmetrical if both the halves of the string are the same and a string is said to be palindrome if one half of the string is reverse of the other half or if a string appears same when read forward or backward. Take an input string from user and identify whether it is symmetric or palindrome or normal text.**

Ans-

def isPalindrome(s):

return s == s[::-1]

s = "cbabc"

ans = isPalindrome(s)

if ans:

print("Yes")

else:

print("No")

1. **Reverse a given integer number.**

Ans-

num = int(input("ENTER THE NUMBER : "))

rev = 0

while num!=0:

rem = num % 10

rev = rev \* 10 + rem

num = num // 10

print("REVERSED NUMBER IS : " + str(rev))

1. **WAP to count the total number of digits in a number using while loop.**

**Ans-**

num = int(input("ENTER THE NUMBER : "))

dig = 0

while num!=0:

num = num // 10

dig += 1

print("NUMBER OF DIGITS : " + str(dig))

1. **Find all the numbers from 1-1000 that have a 3 in them.**

**Ans-**

for i in range(1,1000):

if "3" in str(i):

print(i)

1. **Check whether two strings are anagram of each other.**

**Ans-**

str1 = input("ENTER FIRST STRING : ")

str2 = input("ENTER SECOND STRING : ")

if(sorted(str1)== sorted(str2)):

print("THE STRINGS ARE ANAGRAM")

else:

print("THE STRINGS ARE NOT ANAGRAM")

1. **Write a program in python that accepts a string to setup a passwords.**

**Ans-**

l, u, p, d = 0, 0, 0, 0

s = input("ENTER YOUR PASSWORD : ")

for i in s:

if (i.isupper()):

u+=1

if (i.islower()):

l+=1

if (i.isdigit()):

d+=1

if (len(s)>8 and l>=1 and u>=1 and d>=1):

print("Valid Password")

else:

print("Invalid Password")

1. **Write a Python program that accepts a string from user. Your program should create and display a new string where the first and last characters have been exchanged.**

**Ans-**

str = input("ENTER YOUR STRING : ")

start = str[0]

end = str[-1]

str1 = end + str[1:-1] + start

print("NEW STRING IS : "+str1)

1. **Print the following pattern**

**Ans-**

for i in range (1,6):

for j in range (1,6):

if ((i+j)<=6):

print(j,end="")

print("\n",end="")

1. **Find the GCD of two given numbers.**

**Ans-**

import math

no1 = int(input("ENTER FIRST NUMBER : "))

no2 = int(input("ENTER SECOND NUMBER : "))

print("THE GCD OF "+str(no1)+ " AND "+str(no2)+" IS : ", end="")

print(math.gcd(no1, no2))

1. **WAP to store the sum of all sub tuples of given tuple into a new tuple.**

**Ans-**

tup=((1,2,3),(34,56),(32,67))

sum=0

lst = []

for i in tup:

for j in i:

sum = sum + j

lst.append(sum)

sum = 0

tup1 = tuple(lst)

print(tup1)