Q-1

def common(s1,s2):

s1 = set(s1)

s2 = set(s2)

return s1.intersection(s2)

def notcommon(s1,s2):

s1 = set(s1)

s2 = set(s2)

return s1.difference(s2)

def setof(s1,s2):

s1=set(s1)

s2=set(s2)

return sorted(s1.union(s2))

def notboth(s1,s2):

s1 = set(s1)

s2 = set(s2)

return s1.symmetric\_difference(s2)

if \_\_name\_\_ == "\_\_main\_\_":

while (True):

print("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* MENU \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

print("1: ADD TWO STRINGS")

print("2: DISPALY COMMON LATTERS IN TWO STRING ")

print("3: DISPLAY LETTERS WHICH ARE IN THE FIRST STRING BUT NOT IN THE SECOND STRING. ")

print("4: DISPLAY SET OF ALL LETTERS OF BOTH THE STRINGS.")

print("5: DISPLAY LETTERS WHICH ARE IN THE TWO STRINGS BUT NOT IN BOTH.")

op = int(input("ENTER YOUR CHOICE:"))

if op == 1:

s1 = input("entre the 1st string: ")

s2 = input("entre the 2nd string: ")

elif op == 2:

x=common(s1,s2)

print(x)

elif op == 3:

x=notcommon(s1,s2)

print(x)

elif op == 4:

x=setof(s1,s2)

print(x)

elif op == 5:

x=notboth(s1,s2)

print(x)

else:

print("wrong input")

print("Press q to quit and c to continue:", end=" ")

ch = ""

while (ch != "c" and ch != "q"):

ch = input()

if ch == "q":

exit()

elif ch == "c":

continue

Q-2

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

m=[]

for i in range(n):

m.append(list(map(int,input().rstrip().split())))

print("original matrix is:")

for k in range(n):

print(\*m[k])

for i in range(n):

for j in range(n):

if i<j:

m[i][j]=0

print("lower triangular matrix is:")

for k in range(n):

print(\*m[k])

Q-3

import os

arr\_txt = [x for x in os.listdir() if x.endswith(".py")]

print(arr\_txt)

print("entre the file to open and reverse")

x=input()

for i in arr\_txt:

if i==x:

for line in reversed(list(open(x))):

print(line.rstrip())

Q-4

class Stack:

stack=[]

def push(self):

s1=int(input("entre the number to push:"))

self.stack.append(s1)

def pop(self):

if(self.isempty()):

print("stack is empty")

else:

s2=self.stack.pop()

print(f"{s2} is poped")

def peek(self):

if (self.isempty()):

print("stack is empty")

else:

s3=self.stack[-1]

print(f"{s3} is peek element")

def isempty(self):

if self.stack == []:

return True

else:

return False

def print(self):

if (self.isempty()):

print("stack is empty")

else:

print("element of stack are:")

for i in self.stack:

print(i)

#IMPORT MODULE STACK IN NEW FILE

import stack

s=college\_prac.stack.Stack()

if \_\_name\_\_ == "\_\_main\_\_":

while (True):

print("\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* MENU \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*")

print("1: PUSH")

print("2: POP")

print("3: PEEK")

print("4: DISPLAY")

op = int(input("ENTER YOUR CHOICE:"))

if op == 1:

s.push()

elif op == 2:

s.pop()

elif op == 3:

s.peek()

elif op == 4:

s.print()

else:

print("wrong input")

print("Press q to quit and c to continue:", end=" ")

ch = ""

while (ch != "c" and ch != "q"):

ch = input()

if ch == "q":

exit()

elif ch == "c":

continue