16. Write a script named copyfile.py. This script should prompt the user for the names of two text files. The contents of the first file should be input and written to the second file.

Aim:

Write a script named copyfile.py. This script should prompt the user for the names of two text files. The contents of the first file should be input and written to the second file.

Source Code:

file1.txt

This is python program
welcome to python

week16.py

```
'''Write a script named copyfile.py. This script should prompt the user for the names of two text files. The contents of the first file should be input and written to the second
file'''
file1=input("Enter First Filename : ")
file2=input("Enter Second Filename : ")
# open file in read mode
fn1 = open(file1, 'r')

# open other file in write mode
fn2 = open(file2, 'w')

# read the content of the file line by line
cont = fn1.readlines()
#type(cont)
for i in range(0, len(cont)):
    fn2.write(cont[i])

# close the file
fn2.close()
print("Content of first file copied to second file ")

# open file in read mode
fn2 = open(file2, 'r')

# read the content of the file
cont1 = fn2.read()

# print the content of the file
print("Content of Second file :")
print(cont1)

# close all files
```

```
fn1.close()
fn2.close()
```

Output:

```
E:\Python>python week16.py
Enter First Filename : file1.txt
Enter Second Filename : file2.txt
Content of first file copied to second file
Content of Second file :
Hai..
Bye...
welcome..
```

17. Write a program that inputs a text file. The program should print all of the unique words in the file inalphabetical order.

Aim:
Write a program that inputs a text file. The program should print all of the unique words in the file in alphabetical order.

Source Code:
file1.txt

```
This is python program
welcome to python
```

week17.py

```
'''Write a program that inputs a text file. The program should print all of the unique
words in the file in alphabetical order'''
fname = input("Enter file name: ")
fh = open(fname)
lst = list()                    # list for the desired output
words=[];
for line in fh:                  # to read every line of file romeo.txt
   words += line.split()
words.sort()

# display the sorted words

print("The unique words in  alphabetical order are:")
for word in words:
   if word in lst:         # if element is repeated
         continue              # do nothing
```

```
    else:                   # else if element is not in the list
        lst.append(word)
        print(word)
#print(lst)
```

Output:

```
E:\Python>python week17.py
Enter file name: file1.txt
The unique words in  alphabetical order are:
IS
PROGRAM
PYTHON
THIS
TO
WELCOME
```

18. Write a Python class to convert an integer to a roman numeral.

Aim:
Write a Python class to convert an integer to a roman numeral.

Source Code:
week18.py

```
'''Write a Python class to convert an integer to a roman numeral.'''

class irconvert:
    num_map = [(1000, 'M'), (900, 'CM'), (500, 'D'), (400, 'CD'), (100, 'C'), (90, 'XC'),(50, 'L'),
(40, 'XL'), (10, 'X'), (9, 'IX'), (5, 'V'), (4, 'IV'), (1, 'I')]

    def num2roman(self,num):
        roman = ''
        while num > 0:
            for i, r in self.num_map:
                while num >= i:
                    roman += r
                    num -= i
        return roman


num=int(input("Enter any Number :"))
print("Roman Number is : ",irconvert().num2roman(num))
```

Output:

```
E:\Python>python week18.py
Enter any Number :5
Roman Number is :  V

E:\Python>python week18.py
Enter any Number :12
Roman Number is :  XII
```

19. Write a Python class to implement pow(x, n).

Aim:
Write a Python class to implement pow(x, n)

Source Code:
week19.py

```
'''Write a Python class to implement pow(x, n)'''
class py_pow:
  def powr(self, x, n):
      if x==0 or x==1 or n==1:
         return x

      if x==-1:
         if n%2 ==0:
            return 1
         else:
            return -1
      if n==0:
         return 1
      if n<0:
         return 1/self.powr(x,-n)
      val = self.powr(x,n//2)
      if n%2 ==0:
         return val*val
      return val*val*x

x=int(input("Enter x value :"))
n=int(input("Enter n value :"))
print("pow(x,n) value is :",py_pow().powr(x,n))
```

Output:

```
E:\Python>python week19.py
Enter x value :2
Enter n value :3
pow(x,n) value is : 8
```

20. Write a Python class to reverse a string word by word.

Aim:
Write a Python class to reverse a string word by word.

Source Code:
week20.py

```
''' Write a Python class to reverse a string word by word. '''
class py_reverse:
   def revr(self, strs):
       sp=strs.split()
       sp.reverse()
       res=" ".join(sp)
       return res

str1=input("Enter a string with 2 or more words : ")
print("Reverse of string word by word: \n",py_reverse().revr(str1))
```

Output:

```
E:\Python>python week20.py
Enter a string with 2 or more words : CSE STUDENT
Reverse of string word by word:
 STUDENT CSE
```

21. Write a python program to demonstrate GUI form.

Create your own form by using TKinter

22. Write a python program to Create a database and perform SQL commands.

```
import sqlite3

conn = sqlite3.connect('test.db')
```

```
print( "Opened database successfully")
conn.execute('''CREATE TABLE COMPANY
      (ID INT PRIMARY KEY     NOT NULL,
      NAME          TEXT    NOT NULL,
      AGE           INT     NOT NULL,
      ADDRESS       CHAR(50),
      SALARY        REAL);''')
Print( "Table created successfully")
conn.execute("INSERT INTO COMPANY (ID,NAME,AGE,ADDRESS,SALARY) \
    VALUES (1, 'Paul', 32, 'California', 20000.00 )")
conn.execute("INSERT INTO COMPANY (ID,NAME,AGE,ADDRESS,SALARY) \
    VALUES (2, 'Allen', 25, 'Texas', 15000.00 )")
conn.execute("INSERT INTO COMPANY (ID,NAME,AGE,ADDRESS,SALARY) \
    VALUES (3, 'Teddy', 23, 'Norway', 20000.00 )")
conn.execute("INSERT INTO COMPANY (ID,NAME,AGE,ADDRESS,SALARY) \
    VALUES (4, 'Mark', 25, 'Rich-Mond ', 65000.00 )")
conn.commit()
print ("Records created successfully")
conn.execute("UPDATE COMPANY set SALARY = 25000.00 where ID = 1")
conn.commit()
print ("Total number of rows updated :", conn.total_changes)
conn.execute("DELETE from COMPANY where ID = 2;")
conn.commit()
print ("Total number of rows deleted :", conn.total_changes)
cursor = conn.execute("SELECT id, name, address, salary from COMPANY")
```

```
for row in cursor:
   print "ID = ", row[0]
   print "NAME = ", row[1]
   print "ADDRESS = ", row[2]
   print "SALARY = ", row[3], "\n"
print "Operation done successfully"
conn.close()
```

OUTPUT:

```
Opened database successfully
Table created successfully
Records created successfully
Total number of rows updated :1
Total number of rows deleted : 1

ID = 1
NAME = Paul
ADDRESS = California
SALARY = 20000.0

ID = 3
NAME = Teddy
ADDRESS = Norway
SALARY = 20000.0
```

ID = 4

NAME = Mark

ADDRESS = Rich-Mond

SALARY = 65000.0

Operation done successfully