

3

## PROGRAM-1

Write a program to read and display file content line by line with each word separated by a '#':

### AIM:

To read a text file line by line and display each word separated by a '#':

### PROGRAM CODE:

```
myfile=open("D:\India.txt","r")
line=''
while line:
    line=myfile.readline()
    for word in line.split():
        print(word,end="#")
    print()
myfile.close()
```

## OUTPUT:

Bharath# is# my# motherland.#  
All #bharatheeyans# are# my# brothers#  
and # Sisters.#

A

## PROGRAM-3

Write a program to remove all the lines that contain the character 'a' in a file and write it to another file.

### AIM:

To remove all the lines that contain the 'a' in a file and write it to another file.

### PROGRAM CODE:

```

myfile=open("D:\\Files.txt","r")
a=myfile.readlines()
c=[]
d=[]
for i in a:
    if 'a' in i:
        c.append(i)
    else:
        d.append(i)
myfile.close()
myfile1=open("D:\\File1.txt","w")
myfile1.writelines(c)
myfile1.close()
myfile2=open("D:\\Files2.txt","w")
myfile2.writelines(d)
myfile2.close()

```

## OUTPUT:

In Files.txt:

File Handling

1. Introduction
2. Opening and closing files
3. Working with text files
4. Working with binary files
5. CSV files

In File1.txt:

File Handling

2. Opening and closing files
4. Working with binary files

In Files2.txt:

1. Introduction

3. Working with text files
5. CSV files

## PROGRAM-4

Write a program to create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message.

### AIM:

To create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message.

### PROGRAM CODE:

```

import pickle
myfile=open("Student.dat","wb+")
n=int(input("No. of records:"))
d={}
for i in range(1,n+1):
    print("(",i,")")
    name=input("Name of the Student:")
    rollno=int(input("Roll No."))
    d[rollno]=name
pickle.dump(d myfile)
myfile.close()
myfile=open("Student.dat","rb+")
a=int(input("Enter the rollno. to search:"))
b=pickle.load(myfile)

```

if a in b.keys():

    print("The name of the student with  
    given roll no.", a, "is", b[a])

else:

    print("No record matches with the  
    given roll no.")

~~myfile.close()~~

## OUTPUT:

C:\MAYUR\31

No. of records: 3

(1) Name of the student: Lakshmi  
Roll No.: 28

(2)

Name of the student: Ramu

Roll No.: 24

(3)

Name of the student: Radha

Roll No: 55

Enter the rollno. to search: 55

The name of the student with given  
roll no. 55 is Radha



## PROGRAM-5

Write a random number generator that generates random numbers between 1 and 6 (Simulates a dice).

### AIM:

To create a random number generator that generates a random number between 1 and 6.

### PROGRAM CODE:

```

print("IMAGINARY DICE")
import(random, time)
c=True
while c:
    print("Dice rolling...\n")
    time.sleep(2)
    a=random.randint(1,6)
    print(a)
    b=input("\nDo you want to roll the dice once more (y/n)?")
    if b=='y':
        continue
    else:
        c=False
    print("\n GAME OVER...")

```

## OUTPUT:

IMAGINARY DICE

Dice rolling...

6

Do you want to roll the dice once more(y/n)?y

Dice rolling...

1

Do you want to roll the dice once more(y/n)?n

GAME OVER...



## PROGRAM-6

Write a python program to implement a stack using a list.

### AIM:

To implement stack using a list.

### PROGRAM CODE:

```
a = []
```

```
while True:
```

```
    print("Push-1")
```

```
    print("Pop-2")
```

```
    print("Display-Stack-3")
```

```
    print("Exit-4")
```

```
b = int(input("Enter your choice:"))
```

```
if b == 1:
```

```
    c = input("Enter any element:")
```

```
    a.append(c)
```

```
elif b == 2:
```

```
    if a == []:
```

```
        print("Underflow! Stack is empty...")
```

```
    else:
```

```
        print("Popped element is", a.pop())
```

```
elif b == 3:
```

```
    if a == []:
```

```
        print("Stack is empty...")
```

```
    else:
```

1

```
d = len(a)
for i in range(d-1, -1, -1):
    print(a[i])
elif b == 4:
    print("End")
    break
else:
    print("Invalid Choice!")
```

1

## OUTPUT:

Push-1

Pop-2

Display Stack-3

Exit-4

Enter your choice: 1

Enter any element: Apple

Push-1

Pop-2

Display Stack-3

Exit-4

Enter your choice: 1

Enter any element: Ball

Push-1

Pop-2

Display Stack-3

Exit-4

Enter your choice: 3

Ball

Apple

Push-1

Pop-2

Display Stack-3

Exit-4

Enter your choice: 2

Popped element is Ball

Push-1

Pop-2

Display Stack-3

Exit-4

Enter your choice: 3

Apple

Push-1

Pop-2

Display Stack-3

Exit-4

Enter your choice: 4

End

## PROGRAM-7

Write a python function to write and read the file 'PRODUCT.csv' with the data given below:

The first record of the file should be 'PID, PNAME, COST, QUANTITY'.

Sample of PRODUCT.csv is given below:

'P<sub>1</sub>, BRUSH, 50, 200  
 P<sub>2</sub>, TOOTHPASTE, 120, 150  
 P<sub>3</sub>, SOAP, 40, 300  
 P<sub>4</sub>, SHEETS, 100, 500  
 P<sub>5</sub>, PEN, 10, 250.'

### AIM:

To read and write the file 'PRODUCT.csv' with the given data.

### PROGRAM CODE:

```
import CSV
prodData=[["PID", "PNAME", "COST", "QUANTITY"],
          ["P1", "BRUSH", 50, 200],
          ["P2", "TOOTHPASTE", 120, 150],
          ["P3", "SOAP", 40, 300],
          ["P4", "SHEETS", 100, 500],
          ["P5", "PEN", 10, 250]]
```

1

```
def write():
    a=open("PRODUCT.CSV","w",newline="")
    c=CSV.writer(a)
    c.writerow(prodata)

def read():
    a=open("PRODUCT.CSV","r")
    c=CSV.reader(a)
    for i in c:
        print(i)

write()
read()
```

## OUTPUT:

```
[ 'PID', 'PNAME', 'COST', 'QUANTITY' ]  
[ 'P1', 'BRUSH', '50', '200' ]  
[ 'P2', 'TOOTHPASTE', '120', '150' ]  
[ 'P3', 'SOAP', '40', '300' ]  
[ 'P4', 'SHEETS', '100', '500' ]  
[ 'P5', 'PEN', '10', '250' ]
```

## PROGRAM-8

Write a program that reads a date as an integer in the format MMDDYYYY. The program will call a function that prints out the date in the format <Month Name>, <Day>, <Year>.

### AIM:

To convert the given date in the standard form.

### PROGRAM CODE:

```

a=Str(input("Enter a date in the form of
<MM><DD><YYYY>:"))
def Standardform(a):
    if a[0]=='0':
        if a[1]=='1':
            print("The date in the standard
form is January", a[2:4], a[4:8])
        elif a[1]=='2':
            print("The date in the standard
form is February", a[2:4], a[4:8])
        elif a[1]=='3':
            print("The date in the standard
form is March", a[2:4], a[4:8])
        elif a[1]=='4':
            print("The date in the standard
form is April", a[2:4], a[4:8])
        elif a[1]=='5':
            print("The date in the standard
form is May", a[2:4], a[4:8])
        elif a[1]=='6':
            print("The date in the standard
form is June", a[2:4], a[4:8])
        elif a[1]=='7':
            print("The date in the standard
form is July", a[2:4], a[4:8])
        elif a[1]=='8':
            print("The date in the standard
form is August", a[2:4], a[4:8])
        elif a[1]=='9':
            print("The date in the standard
form is September", a[2:4], a[4:8])
        elif a[1]=='0':
            print("The date in the standard
form is October", a[2:4], a[4:8])
        elif a[1]=='1':
            print("The date in the standard
form is November", a[2:4], a[4:8])
        elif a[1]=='2':
            print("The date in the standard
form is December", a[2:4], a[4:8])
    else:
        print("The date in the standard
form is ", a[0:2], a[2:4], a[4:8])

```

1

form is April", a[2:4], a[4:8])  
 elif a[1] == '5':

print("The date in the standard  
 form is May", a[2:4], a[4:8])

elif a[1] == '6':

print("The date in the standard  
 form is June", a[2:4], a[4:8])

elif a[1] == '7':

print("The date in the standard  
 form is July", a[2:4], a[4:8])

elif a[1] == '8':

print("The date in the standard  
 form is August", a[2:4], a[4:8])

else:

print("The date in the standard  
 form is September", a[2:4], a[4:8])

elif a[0] == '1':

if a[1] == '0':

print("The date in the standard  
 form is October", a[2:4], a[4:8])

elif a[1] == '1':

print("The date in the standard  
 form is November", a[2:4], a[4:8])

elif a[1] == '2':

print("The date in the standard  
 form is December", a[2:4], a[4:8])

else:

print("Please enter the correct value..")

else:

print("Please enter the correct value...")  
standardform(a)

✓: ~~if a is not in standard form print "Please enter the correct value..."~~

✓: ~~if a is not in standard form print "Please enter the correct value..."~~

## OUTPUT:

Enter a date in the format of <MM><DD>  
<YYYY>: 11202022

The date in the standard form is

November 20 2022

## PROGRAM-9

Write a program to read today's date (only date part) from the user. Then, display how many days are left in the current month.

### AIM:

To display how many days are left in the current month.

### PROGRAM CODE:

```
import datetime
```

```
a=0
```

```
b=datetime.datetime.now()
```

```
print("Today's date:", b.day)
```

```
if b.month==2:
```

```
    a=28
```

```
elif b.month in (1,3,5,7,8,10,12):
```

```
    a=31
```

```
else:
```

```
    a=30
```

```
print("Total remaining days in the current  
month are:", a-b.day, "days")
```

✓

OUTPUT:

Today's date: 20

Total remaining days in the current month are: 10 days

^

## PROGRAM-10

Write a python program to create a CSV file by entering user-id and password, read and search the password for given user-id.

### AIM:

To create a CSV file by entering user-id and password, read and search the password.

### PROGRAM CODE:

```

import csv
with open("user-info.csv", "w") as obj:
    fileobj = csv.writer(obj)
    fileobj.writerow(["User_ID", "Password"])
    while True:
        user_id = input("Enter ID:")
        password = input("Enter password:")
        record = [user_id, password]
        fileobj.writerow(record)
        x = input("Press Y/y to continue or\nN/n to terminate the program:\n")
        if x in "Nn":
            break
        elif x in "Yy":
            continue
    with open("user-info.csv", "r") as obj1:
        fileobj1 = csv.reader(obj1)

```



```
given=input("Enter the user-id to be  
searched\n:")  
for i in fileobj1:  
    next(fileobj1)  
    if i[0]== given:  
        print("Password is", i[1])  
        break  
    else:  
        print("No record matches with the  
        given user-id")
```

## OUTPUT:

Enter ID: abcd

Enter password: 1234

Press Y/y to continue or N/n to terminate  
the program:

Y

Enter ID: ABCD

Enter Password: 5678

Press Y/y to continue or N/n to terminate  
the program:

Y

Enter ID: lakshmi@2020

Enter password: zsk778

Press Y/y to continue or N/n to terminate  
the program:

N

Enter the user-id to be searched

: ABCD

Password is 5678

PROGRAM- 11

Write a python program to display the size and the number of lines in the textfile.

AIM:

To display the size and the no. of lines in the text file.

PROGRAM CODE:

```

myfile=open("D:\\India.txt","r")
S= myfile.readlines()
linecount=len(S)
Size=0
for i in S:
    a=len(i)
    Size+=a
print("Size of the file is",size)
print("No. of lines in the file is",linecount)

```

In India.txt: (contd.)

Bharath is my motherland.  
All bharatheeyans are my brothers and  
Sister  
I love my motherland and I am proud  
of its rich and varied heritage.

Output: ("bhagya nandini")

Size of the file is 141

No. of lines in the file is 3



## PROGRAM-12

Write a python program to check the given number is armstrong or not.

### AIM:

To check the entered no. is armstrong or not.

### PROGRAM CODE:

```

def arm():
    n=int(input("Enter the number:"))
    s=n
    b=len(str(n))
    sum=0
    while n!=0:
        r=n%10
        sum=sum+(r**b)
        n=n//10
    if s==sum:
        print("The given number",s,"is
              armstrong number")
    else:
        print("The given number",s,"is not
              armstrong number")
arm()
  
```

Output:

Enter the number: 9

The given number 9 is armstrong number

## PROGRAM- 14

Write a python program to find factorial of the number entered.

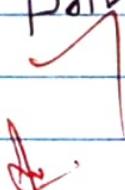
### AIM:

To find factorial of the given number.

### PROGRAM CODE:

```
def factorial(n):
    if n<0:
        fact=-1
    while n<-1:
        fact*=n
        n-=1
    return fact
elif n==0 or n==1:
    return 1
else:
    fact=1
    while n>1:
        fact*=n
        n-=1
    return fact
```

```
num=int(input("Enter the number to find factorial:"))
print("Factorial of ", num, "is", factorial(num))
```



Output:

Enter the number to find factorial: 5

Factorial of 5 is 120

