

Python class tasks

Encrypted msg 1;

```
msg=input("enter any text :")
for ch in msg:
    ch2=chr(ord(ch)+1)
    print(ch2)

with open("encrypted_message.txt", "a") as f:
    f.write(msg)

print("Encrypted message written to encrypted_message.txt file.")
out put
```

word : appreciate

Meaning :To admire greatly

Antonyms : Depreciate

Sentence : I was appreciate for my work

word : good

meaning : buht acha

antonyms: bad

sentence : i am good in programming

2)

Program to generate a random number between 0 and 9

importing the random module

import random

print(random.randint(0,9))

3) task read data into the file and print result

```
file=open("abcs.txt","w+");
fname=input("please enter your first name ")
lname=input("please enter your last name ")

file.write(fname + '\n')
file.write(lname)

file.close()

#writtting data

file=open("abcs.txt",mode="r+")
data=file.read()
print(data)
file.close()
out put
```

please enter your first name nirma

please enter your last name abro

nirma

abro

4)

Python File Operations - Read and Write delete , search operations into files with Python

1. Open a file
2. Take input from that file / Write output to that file
3. Close the file

Below, I've listed some of the common reading modes for files:

- 'r' : This mode indicate that file will be open for reading only
- 'w' : This mode indicate that file will be open for writing only. If file containing containing that name does not exists, it will create a new one
- 'a' : This mode indicate that the output of that program will be append to the previous output of that file
- 'r+' : This mode indicate that file will be open for both reading and writing

```
#directory: /home/imtiaz/code.py
```

```
text_file = open('file.txt','r')
```

```
#Another method using full location
```

```
text_file2 = open('/home/imtiaz/file.txt','r')
```

```
print('First Method')
```

```
print(text_file)
```

```
print('Second Method')
```

```
print(text_file2)
```

The output of the following code will be

```
===== RESTART: /home/imtiaz/code.py =====
```

```
First Method
```

```
Second Method
```

```
>>>
```

Here are some of the functions in Python that allow you to read and write to files:

- `read()` : This function reads the entire file and returns a string
- `readline()` : This function reads lines from that file and returns as a string. It fetch the line `n`, if it is been called `nth` time.
- `readlines()` : This function returns a list where each element is single line of that file.
- `readlines()` : This function returns a list where each element is single line of that file.
- `write()` : This function writes a fixed sequence of characters to a file.
- `writelines()` : This function writes a list of string.

- `append()` : This function append string to the file instead of overwriting the file.

`#open the file`

```
text_file = open('/Users/pankaj/abc.txt','r')
```

`#get the list of line`

```
line_list = text_file.readlines();
```

`#for each line from the list, print the line`

```
for line in line_list:
```

```
    print(line)
```

```
text_file.close() #don't forget to close the file
```

Output:

Hi nirma

I m here

`#open the file`

```
text_file = open('/Users/pankaj/file.txt','w')
```

`#initialize an empty list`

```
word_list= []
```

```
#iterate 4 times
```

```
for i in range (1, 5):
```

```
    print("Please enter data: ")
```

```
    line = input() #take input
```

```
    word_list.append(line) #append to the list
```

```
text_file.writelines(word_list) #write 4 words to the file
```

```
text_file.close() #don't forget to close the file
```

out put

please enter the data

1

please enter the data

2

please enter the data

3

please enter the data

4

```
import shutil
```

```
shutil.copy2('/Users/pankaj/abc.txt', '/Users/pankaj/abc_copy2.txt')
```

```
#another way to copy file
```

```
shutil.copyfile('/Users/pankaj/abc.txt', '/Users/pankaj/abc_copyfile.txt')
```

```
print("File Copy Done")
```

Python's shutil module offers the remove() method to delete files from the file system.

Let's take a look at how we can perform a delete operation in Python.

```
import shutil
```

```
import os
```

```
#two ways to delete file
```

```
shutil.os.remove('/Users/pankaj/abc_copy2.txt')
```

```
os.remove('/Users/pankaj/abc_copy2.txt')
```

yo close the file by using close function

```
fileobject.close()
```

5)

```
msg=input("enter any text :")
for ch in msg:
    ch2=chr(ord(ch)+1)
    print(ch2)

with open("encrypted_message.txt", "a") as f:
    f.write(msg)

print("Encrypted message written to encrypted_message.txt file.")
```

6)

```
n=int(input("Enter the total no of key value pair you want inside your dictionary :"))
dic={}
for i in range(n):
    k=(input("enter the key: "))
    v=input("enter the value: ")
    dic.update({k:v})
print("my dictionary :",dic)
choice=(input("please enter the word that you want to see"))
if choice=='appreciate':
    print("Meaning : To admire greatly ")
    print("Antonym : Depreciate")
    print("Sentence : I was appreciate for my work :)")
elif choice=='Awesome':
    print("")
    print("Antonyms : ")
    print("It is Awesome weather")
elif choice=='sure':
    print("Meaning : certain ")
    print("Antonyms : ")
    print("sentence :Surely no doubt My ALLAH is always with me ")
elif choice=='exit':
    exit()
    print('program has been terminated ...')
```

dictionary program

```
7) n=input("please enter your number for fact")

def fact(n):
    if n==1:
        return 1
```

```

        else:
            total=n*fact(n-1)
            print(total)
9) file = open("pythonnn.txt", "w+")

print("congrats ! your file is created now")
file = open("pythonn.txt", mode='w')
n = file.write("hellow this is a new project on python on file handling ;-)")
# print(n);
file.close()
choice = 0
while choice < 9:
    print("welcome to Nirma Abro file handling project ")
    print("1. to check file is readable or not.")
    print("2. to show all the data in a file")
    print("3. to add new student record in a file")
    print("4. to delete student record in a file")
    print("5. to search student in a file")
    print("6 . to show all studen data in a file ")
    print("7. to exit the program;-)")

    Choice = int(input("please enter your choice "))
    # if (choice<=0 or choice>=7):
    #     print("Wrong Choice");
    #     continue
    if choice == 1:
        file = open("pythonnn.txt", "w+")
        if file.readable():
            print("file is readable:-)")
        else:
            print("file is not readable :-")
            file.close()
            continue
    if choice == 2:

        file = open("pythonnn.txt", "w+")

        fname = input("please enter your first name ")
        lname = input("please enter your last name ")

        file.write(fname + '\n')
        file.write(lname)

        file.close()
    if choice==3:

```



```

        file=open("pythonnn.txt",mode="r")
        data=file.read()
        file.close()

10) english=int(input("enter the marks of english subject"));

urdu=int(input("enter the marks of urdu subject"));
computer=int(input("enter the marks of computer subject"));
maths=int(input("enter the marks of maths subject"));
java=int(input("enter the marks of java subject"));
total=english+urdu+computer+maths+java;
percentage=total/5;
print("aggregate function ",total);
print("percentage marks ",percentage);


11) number=int(input("enter the number of which you want to print "));

print("The multipilication table of : ",number);
for count in range(1,11):
    print(number,'x',count,'=',number*count);

```

```

12) #print fabonanci series

num=int(input("enter any number "));
n1,n2=0,1
sum=0
if num<=0:
    print ("plz enter number greater than 0");
else:
    for i in range (0,num):
        print(sum,end=" ")
        n1=n2
        n2=sum
        sum=n1+n2

```

13 base and power program

```

x=int(input("Enter a base"));
y=int(input("enter a power "));
prod=1
for i in range(y):
    prod*=x;
print("The value is : ",prod);
14) num=int(input("Enter a number "))

```

```

factorial=1
if num<0:
    print("please enter a number greater than zero")
elif num==0:
    print ("the factorial of 0 is one ")
else:
    for i in range(1,num+1):
        factorial=factorial*i
    print("the factorial of ",num,"is",factorial)
14) a=int(input("enter the marks of first subject"));

b=int(input("enter the marks of second subject"));
c=int(input("enter the marks of third subject "));
total=a+b+c;
avg=total/3;
print("total marks ",total);
print("average marks ",avg);
15) x = int(input("enter rows"))

y = int(input("enter columns"))
mat = []
for i in range(x):
    temp = []
    for j in range(y):
        temp.append(int(input("Enter value: ")))
    mat.append(temp)

for j in range(int(input("enter number of column"))):

    print("add matrix")
    r[i][j] = x[i][j]+y[i][j]
for j in range(len(x[0])):
    for i in range(len(x)):
        print(r)

16) char= input("enter a character");

if char.isalpha():
    print(char,"is a alphabate ");
elif char.isdigit():
    print(char,"is a digit");
else:
    print(char,"is a special symbol ");

```

```
17) year = int(input("enter any year "));  
  
if (year%4 == 0 and year%100 != 0) and ( year%400 ==0):  
    print (year,"is a leap year ");  
else:  
    print(year , "is not a leap year ");
```

18)

```
nirma=input("enter the age of nirma");  
kiran=input("enter the age of kiran");  
nisha=input("enter the age of nisha ");  
if nirma<=kiran and nirma<=nisha :  
    print("nirma is young");  
elif kiran<=nirma and kiran<=nisha:  
    print("kiran is youngest ");  
elif nisha<=nirma and nisha<=kiran :  
    print("nisha is youngest");  
19)nirma=input("enter the age of nirma");  
  
kiran=input("enter the age of kiran");  
nisha=input("enter the age of nisha ");  
if nirma>kiran and nirma>nisha :  
    print("nirma is oldest");  
elif kiran>nirma and kiran>nisha:  
    print("kiran is oldest ");  
elif nisha>nirma and nisha>kiran :  
    print("nisha is oldest");  
20) ch= input ("enter a character ");  
  
if (ch=='A' or ch == 'a' or ch=='e' or ch=='E' or ch=='i' or ch=='I' or ch=='o' or  
ch=='O' or ch=='u' or ch=='U'):  
    print(ch,"is a vowel ");  
else:  
    print(ch,"is a consonate ");
```