

# COMPUTER SCIENCE

## PROJECT FILE



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XII-A

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Yuvashakti Model School Sector-3, Rohini, Delhi-85

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## **CERTIFICATE**

This is to certify that HARSH VISHWKARMA  
student of Class XII A , Yuvashakti Model School  
has completed solely and satisfactorily regarding  
the project titled '**Sudo Tech Incorporations**'  
during the academic year 2020-2021 towards  
fulfillment of credit for the Computer Science  
practical conducted by CBSE under my  
supervision.

**Ms. Swati Narang**

**Department of Computer Science**

## ACKNOWLEDGEMENT

We would like to express our sincere gratitude to my computer science mentor Ms. Swati Narang, for her vital support, guidance and encouragement - without which this project would not have come forth. Her unflagging patience, creativity and immense knowledge that she shared with us have proved highly beneficial to us and have made our Project File both possible and successful.

**HARSH VISHWAKARMA**

**XII-A**

# MODULES USED

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## ➤ *easygui==0.98.1*

Easygui module is a module used for Graphical User Interface (GUI) related tasks. Its **fileopenbox()** method is used for taking input of files from the user .

## ➤ *mysql-connector-python==8.0.22*

This module is used for connecting mysql-database to our python program for insertion, deletion, updation, searching and modification related tasks. Its **fetchone()**, **fetchall()**, **execute()** methods have been used . Connection object and cursor object OF THIS MODULE had also been used in this project. This module is basically **for interacting with our mysql database** through python.

## ➤ *prettytable==1.0.1*

This module is used for displaying the data fetched from our mysql database through our python script for making this project more user-friendly and simple for end user to understand. This module displays the fetched data in the form of table as displayed in mysql command-line-client.

## ➤ *pyfiglet==0. 8.post1*

This module is used for printing terminal art (designing on terminal) or ASCII art onto terminal/cmd prompt .Its figlet\_format() method has been used for converting text to ASCII art .

## ➤ *PyPDF2==1.26.0*

This module has been used for handling **PDF** files in this project and perform some operations like extracting text using **extractText()** method from **PDF** file , getting number of pages in pdf file using **numPage** method , selecting a particular page in pdf using **getPage()** method and performing above operations and some other methods imported from this module has been used.

## ➤ *termcolor==1.1.0*

This module is used for designing menu options like changing the font color and filling colors onto the terminal through **colored()**, **cprint()** methods of this module.

### ➤ *tqdm==4.54.1*

This module is used for **loading interface** onto the terminal. It is cross platform and supereasy to use. Its **trange()** method has been used in this project to make **progress bar** while program is launching.

### ➤ *plyer*

This module is used for sending **push notifications** in this project by using its `notify()` method . It is cross-platform which means you can use it on linux,windows,macos.

### ➤ *requests*

This module is used for making get requests to website through the python program only by using its **get()** method.

### ➤ *json*

This module is used to convert the fetched data from website into json format using **json()** method . **JSON (JavaScriptObjectNotation)** format is widely used for information exchange also it is both **machine and human-readable**.

### ➤ *Beepy*

This module is used for push notification sound .It plays audio after every push notification.

### ➤ *pyttsx3==2.7*

This module is basically a **TTS(Text-to-Speech)** converter module . It allows us to read the text with the help of **Windows OS inbuilt voice** and using windows inbuilt voice **API ,SAPI (SPEECH APPLICATION PROGRAMMING INTERFACE)**.

### ➤ *colorama==0.4.1*

Colorama is a module used for printing colors to windows command prompt/powershell as cmd/powershell doesn't officially support **ANSI escape sequence**. To print colors to windows terminal **init() method** from this moule is used in this project

# Brief Overview of Project

---

This project is aimed at solving real world problems and providing end user a quality service from our company . This project consists of a employee management system , a file reader and a real time corona virus notification system .

- **Employee Management System:** This system can be used for **management** of employee details in business and organizations. Employee details such as name,employeeID, salary,designation etc. can be added , modified , deleted and displayed. One can also search details of any particular Employee . There is also a feature using which we can **send e-mails** to any of the employees. It makes managing details of Employee very **convenient** for business.Features like **push notifications** and **notification sound** is also added.
- **File Reader:** This application can be used for reading texts from any *pdf/text* files. The **system generated voice (computer-voice)** is used to read in this program to read the content from the files This application is also beneficial for the *visually-impaired people*. The **number of pages** in **PDF** file can also be seen during the running of application.
- **Covid-Notification-System:** This system can be used for getting regular updates regarding the **coronavirus pandemic** in India . Real time data will be displayed through the **push notifications** with a short-term buzzing sound . One can also **schedule notification** for every 15 minutes to be displayed on their system.

# Structure of my project

---



cs\_project.py



basic\_op.py



modfun.py



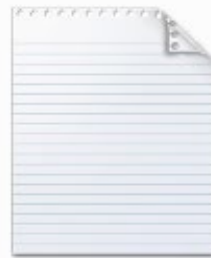
filereader.py



covidinfo.py



covidnotscr.py



requirements.txt



scheduler.bat



gtick.ico



neonbell.ico



updater.ico



error.ico



# CODING



## SOURCE CODE

# CODING (cs\_project.py)

---

```
import os
from termcolor import colored,cprint
from colorama import init
import pyfiglet
from basic_op import addrec,delrec,searchrec,disprec,mailfun
from modfun import modrec
from tqdm import tqdm,trange
from time import sleep
from filereader import freader
from prettytable import PrettyTable
from covidinfo import coronainfo
from plyer import notification as nt # Notification system
from beepy import beep #Notification sound

x=PrettyTable()
init() #WINDOWS PLATFORM FOR PRINIRING COLOrs on cmd/PowerShell
prompt!

x.field_names=['EmpName','Gender','EmpId','Designation','Age','Emp_Mail','Salary']
# ATTRIBUTES OF TABLE

def progressbar():
    for i in trange(100):
        sleep(0.02) #LOADING INTERFACE FUNCTION

def menu():
    cprint(colored('[1] Enter 1 to use Employee Management System',
    ', 'white', 'on_red'))
    print()
    cprint(colored('[2] Enter 2 to use File Reader',
    ', 'magenta', 'on_white'))
    print()
```

```

        cprint(colored('[3] Enter 3 to use Covid Notification System
        ','grey','on_green'))
    print()
    cprint(colored('    SUDO TECH INCORPORATION    ','white','on_red'))
print()

a=pyfiglet.figlet_format('MENU')
print()

print('=====')

print(a)
menu()
choice=int(input('Enter your choice:'))
print()
print('-----')

if choice==1:

    def sqlmenu():
        print(
            ...
            [1]. ADD RECORD
            [2]. DELETE RECORD
            [3]. MODIFY RECORD
            [4]. DISPLAY ALL RECORDS
            [5]. SEARCH RECORDS
            [6]. SEND A MAIL TO EMPLOYEE
            [7]. EXIT THE PROGRAM''')

    print() #FORMATTING PURPOSE
    print()#fORMATTING
    print("[!] Connecting to Database !")
    sleep(1.0)
    print("[!] Initializing Database !")
    sleep(1)
    print(' [!] Loading database records !')
    progressbar()

```

```

sleep(1)
print('DATABASE LOADED SUCCESSULLY!')

cprint(colored('*****EMPLOYEE
MANAGEMENTSYSTEM*****','white','on_red'))

banner=pyfiglet.figlet_format('EMS')
print(banner)
cprint(colored("options:","blue','on_white'))
print()

ans='y'

while ans=='y' or ans=='Y':
    sqlmenu()

    menu=int(input("Type your option : "))

    if menu==1:
        addrec()
        print()# For some gap b/w records and y/n input

    elif menu==2:
        delrec()
        print()# For some gap b/w records and y/n input

    elif menu==3:
        modrec()
        print()# For some gap b/w records and y/n input

    elif menu==4:
        try:
            L=disprec() #Store nested list of records

            for data in L:
                x.add_row(data) #
            print(x)

```

```
nt.notify(title='Success',message='RECORDS  
FOUND',app_icon='gtick.ico',timeout=3)  
beep(sound='ping')
```

```
x.clear_rows()
```

```
except Exception as e: #runtime error if no recs
```

```
    cprint(colored('ERROR!!','white','on_red'))  
    nt.notify(title='Database  
Empty',message='No records to display  
,app_icon='error.ico',timeout=3)  
    beep(sound='error')  
    print()  
    # For some gap b/w records and y/n input
```

```
elif menu==5:
```

```
    try: #if not none
```

```
        L=searchrec() #L WILL STORE LIST  
        x.add_row(L)  
        print(x)  
        nt.notify(title='Success',message='RECORD  
FOUND',app_icon='gtick.ico',timeout=3)  
        beep(sound='ping')
```

```
        x.clear_rows()
```

```
    except Exception as e:
```

```
        cprint(colored('ERROR!!','white','on_red'))  
        print()# For some gap b/w records and y/n input
```

```
        nt.notify(title='Failure',message='Error',app_icon=  
'error.ico',timeout=3)  
        beep(sound='error')
```

```
elif menu==6:
```

```
try:  
    mailfun()
```

```
except Exception as e:
```

```
    cprint(colored("MAIL NOT SENT , PLEASE  
CONNECT TO INTERNET!", 'white', 'on_blue'))  
    nt.notify(title='Failure', message='Please connect  
to Internet', app_icon='error.ico', timeout=3)  
    beep(sound="error")# Notifiication sound
```

```
elif menu==7:
```

```
    cprint(colored('BYE USER !!', 'white', 'on_red'))  
    nt.notify(title='Exit', message='BYE  
USER', app_icon='redbell.ico', timeout=3)  
    beep(sound='success')
```

```
    sleep(4)  
    exit()
```

```
else:
```

```
    print('Invalid option !!')  
    print()# For some gap b/w records and y/n input  
    nt.notify(title='Invalid ', message='Invalid option  
, app_icon='error.ico', timeout=3)  
    beep(sound='error')
```

```
ans=input("Want to continue type[y], else[n] :")
```

```
elif choice==2:
```

```
    freader() # FILE READER
```

```
elif choice==3:
```

```
print()
cprint(colored('COVID__INFO__NOTIFIER__SYSTEM','white','on_red'))
print()
```

```
coronainfo()
```

```
print('' After typing y you can close this program and
      notification will be sent to you every 15 minutes '')
```

```
print()
ch3=input("If you want notification every 15 minute type[y],else[n]:")
if ch3=='y' or 'Y':
```

```
    os.system('scheduler.bat')
```

```
    cprint(colored('Notification Scheduled for every 15 minutes
!','white','on_red'))
```

```
else:
```

```
    cprint(colored('Bye User','white','on_red'))
```

```
else:
```

```
    cprint(colored('Error , Invalid option!','white','on_red'))
    nt.notify(title='Invalid ',message='Invalid option
!','app_icon='error.ico',timeout=3)
    beep(sound='error')
```

# Coding (basic\_op.py)

---

```
from email.mime.text import MIMEText
from email.mime.multipart import MIMEMultipart
import smtplib

from termcolor import cprint,colored
from colorama import init # WINDOWA PLATFORM

import mysql.connector as ms# for line 15
from time import sleep # FOR LINE 19

from plyer import notification as nt # Notification system
from beepy import beep #Notification sound

init() #WINDOWS PLATFORM

try:

    mycon=ms.connect(host='localhost',user='root',passwd='Kali',database='Emplmgs',autocommit=True) #,autocommit=True
    cursor=mycon.cursor()

except Exception as e:
    cprint(colored("Error connecting to databse!!",'white','on_yellow'))
    sleep(4)# TIME FOR USER TO READ ERROR MESSAGE
    exit() #TERMINATING THE PROGRAM

def addrec():
    EmpName=input('Enter Employee name :').upper()
    Gender=input("Enter gender [M]/[F] :").upper()
    Empld=input('Enter unique 5 Digit Employee ID:').upper()
    Designation=input("Enter Designation :").upper()
    Age=int(input('Enter age of Employee:'))
    Emp_Mail=input("Enter E-Mail id of Employee:").lower()
    Sal=int(input("Enter Salary of Employee :"))

    add_query="insert into Emplrec
    values('{','}','{','}','{','}','{','}')".format(EmpName,Gender,Empld,Designation,Age,Emp_Mail,Sal)
    cursor.execute(add_query)
    mycon.commit()
    cprint(colored("RECORD ADDED SUCCESSFULLY !",'white','on_red'))
    nt.notify(title='Success',message='RECORDS ADDED')
```



```
SUCCESSULLY',app_icon='gtick.ico',timeout=3)
beep(sound='ping')
#Notification SYSTEM
```

```
def delrec():
```

```
    EmpId=input("Enter unique 5 Digit Employee ID:").upper()
    CHK_QUERY='Select * from Emplrec where EmpId="{0}"'.format(EmpId)
    cursor.execute(CHK_QUERY)
    datachk=cursor.fetchone() #NONE IF IT IS EMPTY
```

```
    if datachk!=None:
```

```
        EmpName,Gender,EmpId,Designation,Age,Emp_Mail,Salary=datachk
        del_query='Delete from Emplrec where EmpId="{0}"'.format(EmpId)
        cursor.execute(del_query)
        mycon.commit()
        cprint(colored("RECORD DELETED SUCCESSULLY !",'white','on_red'))
        nt.notify(title='Success',message='Record deleted
        successfully',app_icon='gtick.ico',timeout=3)
        beep(sound='ping')
```

```
    else:
```

```
        cprint(colored("INVALID EMPID , ID DOES NOT EXIST IN DATABASE
        !",'green','on_white'))
        nt.notify(title='Error!',message='EMPID DOES NOT EXIST IN DATABASE
        !',app_icon='error.ico',timeout=3)
        beep(sound='error')
```

```
def searchrec():
```

```
    Id=input("Enter unique 5 Digit Employee ID:").upper()
    search_q="Select * from Emplrec where EmpId='{0}'".format(Id)
    cursor.execute(search_q)
    data=cursor.fetchone() #IT RETURNS NONE IF IT IS EMPTY
```

```
    if data!=None:
```

```
        EmpName,Gender,EmpId,Designation,Age,Emp_Mail,Salary=data
        L=[EmpName,Gender,EmpId,Designation,Age,Emp_Mail,Salary]
        return L
```

```
    else:
```

```
        cprint(colored('INVALID ID !!, ID DOES NOT EXIST','grey','on_white'))
```

```
def disprec():
```

```
    l=[]#TO HOLD ALL RECORDS
```

```

dis_q='Select * from Emplrec'
cursor.execute(dis_q)
data=cursor.fetchall() # LIST TYPE ELEMENT

if data!=[]: #IF RECORDS ARE PRESENT
    for row in data: # ITERATING THROUGH THE RESULT SET
        # print(row) NOT PRINTING TUPLE , SHOWING TABLE..
        l.append(list(row)) #CONVERTING TUPLE TO LIST(NESTED) FOR ADDING IN PRETTYTABLE
    return l

else: # IF NO RECORDS IN DATABASE
    cprint(colored('NO RECORDS EXIST!, DATABASE EMPTY!','white','on_blue'))

```

```
def mailfun():
```

```

    Empld=input("Enter Empld of Employee:")
    Empld=Empld.upper()
    q="Select * from Emplrec where Empld='{ }'".format(Empld)
    cursor.execute(q)
    r=cursor.fetchone()
    if r!=None:

        EmpName,Gender,Empld,Designation,Age,Emp_Mail,Salary=r # UNPACKING .....

        Msg=MIMEMultipart()
        BOT_ID='sudocorporations@gmail.com'
        BOT_PWD='sudo_tech@#'
        server=smtplib.SMTP('smtp.gmail.com',587) #HOST AND PORT
        # server.ehlo()
        server.starttls()#Transport layer security encryption
        server.login(BOT_ID,BOT_PWD)

        Subject=input('Enter Subject of mail:')
        body=input('Enter body of mail:')
        body=body+'\n'+ '\n' + "Thank you" + '\n' + "Sudo Corporations"
        Msg["From"]=BOT_ID
        Msg["To"]=Emp_Mail
        Msg["Subject"]=Subject
        Msg.attach(MIMEText(body,'plain')) #ATTACHING BODY
        content=Msg.as_string()
        server.sendmail(BOT_ID,Emp_Mail,content)
        print()
        o=f"MAIL SENT SUCCESSFULLY TO {EmpName} whose EmpID is: {Empld}"
        cprint(colored(o,'white','on_red'))
        server.quit()
        nt.notify(title='Success',message='Mail sent successfully',app_icon='gtick.ico',timeout=3)
        beep(sound="ping") # Notification sound

```

**else:**

```
cprint(colored("INVALID Empld !!",'white','on_green'))  
nt.notify(title='INVALID ID',message='Id does not exist in  
database!',app_icon='error.ico',timeout=3)  
beep(sound="error") # Notifiication sound
```

# CODING(modfun.py)

---

```
import mysql.connector as ms
from colorama import init
from time import sleep
from termcolor import cprint,colored
from plyer import notification as nt # Notification system
from beepy import beep #Notification sound

init()
try:

    mycon=ms.connect(host='localhost',user='root',passwd='Kali',database='Emplmgs',autocommit=True) #,autocommit=True
    cursor=mycon.cursor()

except Exception as e:
    cprint(colored("Error connecting to databse!!",'white','on_red'))
    sleep(4)# TIME FOR USER TO READ ERROR MESSAGE
    exit() #TERMINATING THE PROGRAM

def modrec():
#EMPID HAS ALREADY UNIQUE CONSTRAINT CHECK IN MYSQL
    print(
    '''
    [1]. EmpName

    [2]. Gender

    [3]. Designation

    [4]. Age

    [5]. Emp_Mail

    [6]. Salary

    [7]. Increase Salary by %

    [8]. Decrease Salary by %
    '''
    )

    ch=int(input('Enter your choice:'))
```

```
EID=input("Enter unique 5 Digit Employee ID:").upper() #to match casing
```

```
chk_q="Select * from Emplrec where EMPID='{}'.format(EID)
```

```
cursor.execute(chk_q)
```

```
r=cursor.fetchone()
```

```
if r!=None:
```

```
    EmpName,Gender,EmpId,Designation,Age,Emp_Mail,Salary=r
```

```
    if ch==1:
```

```
        field="Name" # For sending in mail
```

```
        New_Name=input('Enter new name :').upper()
```

```
        query='update Emplrec set EmpName="{}" where
```

```
            EmpId="{}".format(New_Name,EID)
```

```
        cursor.execute(query)
```

```
        mycon.commit()
```

```
        o=f"NAME UPDATED SUCCESSULLY TO : {New_Name} "
```

```
        cprint(colored(o,'white','on_red'))
```

```
        nt.notify(title='Updation Successful',message='NAME UPDATED
```

```
SUCCESSULLY',app_icon='gtick.ico',timeout=3)
```

```
        beep(sound='ping')
```

```
    elif ch==2:
```

```
        field="Gender"
```

```
        Gen=input("Enter new gender [M]/[F]:").upper()
```

```
        query='update Emplrec set Gender="{}" where EmpId="{}".format(Gen,EID)
```

```
        cursor.execute(query)
```

```
        mycon.commit()
```

```
        o=f"GENDER UPDATED SUCCESSULLY TO: {Gen}"
```

```
        cprint(colored(o,'white','on_red'))
```

```
        nt.notify(title='Updation Successful',message='GENDER UPDATED
```

```
SUCCESSULLY',app_icon='gtick.ico',timeout=3)
```

```
        beep(sound='ping')
```

```
    elif ch==3:
```

```
        field="Designation"
```

```
        Des=input("Enter New Designation:").upper()
```

```
        query='update Emplrec set Designation="{}" where EmpId="{}".format(Des,EID)
```

```
        cursor.execute(query)
```

```
        mycon.commit()
```

```
        o=f"DESIGNATION UPDATED SUCCESSULLY TO : {Des}"
```

```
        cprint(colored(o,'white','on_red'))
```

```
        nt.notify(title='Updation Successful',message='DESIGNATION UPDATED
```

```
SUCCESSULLY',app_icon='gtick.ico',timeout=3)
```

```
        beep(sound='ping')
```

```

elif ch==4:
    field='Age'
    age=int(input("Enter new age:"))
    query='update Emplrec set Age={} where EmpId={}{}'.format(age,EID)
    cursor.execute(query)
    mycon.commit()
    o=f"AGE UPDATED SUCCESSULLY TO :{age}"
    cprint(colored(o,'white','on_red'))
    nt.notify(title='Updation Successful',message='AGE UPDATED
    SUCCESSULLY',app_icon='gtick.ico',timeout=3)
    beep(sound='ping')

elif ch==5:
    field="MAIL ID"
    mail_id=input("Enter new mail id :").lower()

    query='update Emplrec set Emp_Mail={}{} where
    EmpId={}{}'.format(mail_id,EID)
    cursor.execute(query)
    mycon.commit()
    o=f"MAIL ID UPDATED SUCCESSULLY TO:{mail_id}"
    cprint(colored(o,'white','on_red'))
    nt.notify(title='Updation Successful',message='MAIL ID UPDATED
    SUCCESSULLY',app_icon='gtick.ico',timeout=3)
    beep(sound='ping')

elif ch==6:
    field="Salary"
    sal=int(input("Enter updated Salary :"))
    sal_q="update Emplrec set Salary={} where EmpId={}{}".format(sal,EID)
    cursor.execute(sal_q)
    mycon.commit()
    o=f"SALARY UPDATED SUCCESSULLY TO: {sal}"
    cprint(colored(o,'white','on_red'))
    nt.notify(title='Updation Successful',message='SALARY UPDATED
    SUCCESSULLY',app_icon='gtick.ico',timeout=3)
    beep(sound='ping')

elif ch==7:
    per=int(input("Enter the % by which salary to be Increased:"))
    r_per=per/100
    in_sal=int((Salary)+(Salary*r_per))
    q="Update Emplrec set Salary={} where EmpId={}{}".format(in_sal,EID)

```

```
cursor.execute(q)
mycon.commit()
o=f"SALARY HAS BEEN INCREASED BY {per}%"
cprint(colored(o,'white','on_red'))
nt.notify(title='Updation Successful',message='Salary
Increased!',app_icon='gtick.ico',timeout=3)
beep(sound='ping')
```

elif ch==8:

```
per=int(input("Enter the % by which salary to be Decreased:"))
r_per=per/100
de_sal=int((Salary)-(Salary*r_per))
# print(de_sal)
q="Update Emplrec set Salary={} where EmpId='{}'.format(de_sal,EID)
cursor.execute(q)
mycon.commit()
o=f"SALARY HAS BEEN DECREASED BY {per}%"
cprint(colored(o,'white','on_red'))
nt.notify(title='Updation Successful',message='Salary
Decreased!',app_icon='gtick.ico',timeout=3)
beep(sound='ping')
```

else:

```
cprint(colored("INVALID OPTION!!",'green','on_white'))
nt.notify(title='Error',message='Invalid option!',app_icon='error.ico',timeout=3)
beep(sound='error')
```

else:

```
cprint(colored("INVALID EMPLOYEE ID , ID DOES NOT EXIST IN
DATABASE",'white','on_red'))
nt.notify(title='INVALID EMPLOYEE ID',message='ID DOES NOT EXIST IN
DATABASE',app_icon='error.ico',timeout=3)
beep(sound='error')
```

# CODING(filereader.py)

---

```
import pyttsx3 #speech ENGINE
from colorama import init #WINDOWS COLOR FORMATTING
from termcolor import cprint,colored # COLOR FORMATTING TEXT
from time import sleep
import PyPDF2 #pdf file handling
import pyfiglet #ascii art
from tqdm import trange # loading interface module
import easygui # GUI FILE INPUT
init()

engine=pyttsx3.init('sapi5') #SAPI5 IS THE WINDOWS API FOR IN-BUILT VOICES OF WINDOWS
voices=engine.getProperty('voices')
engine.setProperty('voice',voices[0].id)

def speak(text):
    engine.say(text)
    engine.runAndWait()

def progressbar():
    for i in trange(100):
        pass
        sleep(0.02) #LOADING INTERFACE FUNCTION

def freader():

    cprint(colored('[!] INITIALISING PROGRAM ...','grey','on_white'))
    speak('initialising program in your system')

    print()
    cprint(colored('[!] CONFIGURING SETTINGS ...','white','on_blue'))
    speak("configuring settings")

    print()

    cprint(colored('[!] LOADING.....','grey','on_yellow'))
    speak("loading program in your system")
    print()
    progressbar()
    print()

    cprint(colored('[!] LOADING SUCCESSFULLY'))
    speak('PROGRAM LOADED SUCCESSFULLY IN YOUR SYSTEM')
```



```

print())#FORMATTING PURPOSE
speak("Please enter your name user")
u_name=input("Please enter your name user: ")
print()

cprint(colored('****FILE READER****','white','on_red'))
print())#FORMATTING PURPOSE

a=pyfiglet.figlet_format('FILE READER')
speak("FILE Reader")
print(a)

filetype="" Supported File Types

                                [1]. Text
                                [2]. PDF
'''

cprint(colored(filetype,'grey','on_white'))
speak("Supported file types are of only text and pdf format ")
ans='y'

while ans=='y'or ans=="Y":

    speak(f"Hey {u_name},, please select your file ")

    path=easygui.fileopenbox() # RETURNS THE PATH IN DOUBLE QUOTES

    if path!=None: # if user has selected file

        speak("The file has been selected")

        if path.endswith('.pdf'):

            cprint(colored("PDF File
            Selected",'grey','on_yellow'))
            speak(f"You have selected a pdf file,,
            {u_name} ")
            speak(f"I am going ,,,to read,, it ,,,for ,,,you.
            ,,{u_name}')

            with open(path,'rb') as f:
                pdf=PyPDF2.PdfFileReader(f)
                page=pdf.numPages
                cprint(colored(f'No of pages in
                selected pdf
                :{page}','grey','on_yellow'))

```

```
speak(f'No of pages in selected  
pdf are :,{page}')
```

```
speak(f'Reading it for you  
{u_name}')
```

```
print('Reading.....')
```

```
for i in range(page):
```

```
    t=pdf.getPage(i)
```

```
    text=t.extractText()
```

```
    speak(text)
```

```
elif path.endswith('.txt'):
```

```
    cprint(colored("Text File  
Selected",'white','on_blue'))
```

```
    speak(f'You have selected a text file  
{u_name}')
```

```
    speak(f'Reading it for you {u_name}')
```

```
    with open(path) as f:
```

```
        con=f.read()
```

```
        speak(con)
```

```
else:
```

```
    speak("You have selected Unsupported file  
type ")
```

```
    speak("please select only pdf file or text file")
```

```
    cprint(colored("Unsupported file  
type",'white','on_red'))
```

```
    speak('Please select only .TEXT/PDF format  
file!!.)')
```

```
    print("Only TEXT/PDF file type Supported!")
```

```
ans=input('To continue type[y] , otherwise type[n] to  
exit: ')
```

```
else: #IF NO FILE SELECTED BY USER .
```

```
    cprint(colored("You have not selected any file  
",'white','on_red'))
```

# CODING (covidinfo.py)

```
import requests
import json # for data to be converted in json format
from plyer import notification
from termcolor import cprint,colored
from colorama import init
from time import sleep
from beepy import beep

def coronainfo():
    init() # Windows color formatting
    try:
        a=requests.get('https://corona-rest-api.herokuapp.com/Api/India')
    except:
        cprint(colored('Please connect to internet !','white','on_red'))
        sleep(4)
        print()
        cprint(colored('Terminating the program....','white','on_green'))
        exit()

    t=a.json() # Converting above data to json format
    di=t["Success"]

    info=f'''
Total Cases: {di['cases']}
Total Deaths: {di['deaths']}
Cases Active: {di['active']}
Recovered : {di['recovered']}
Cases Today: {di['todayCases']}
Deaths Today: {di['todayDeaths']}
Critical : {di['critical']}
Tests Today: {di['totalTests']}
'''

    notification.notify(title="Covid Info
India",message=info,app_icon='updater.ico',timeout=18,app_name="CovidSta
ts")
    beep(sound='ready')
```

# CODING

---

```
from time import sleep  
  
from covidinfo import coronainfo  
  
while True:  
    coronainfo()  
  
    sleep(15*60)
```

covidnotscr.py



```
START pythonw.exe covidnotscr.py  
  
exit
```

scheduler.bat



```
colorama==0.4.1  
easygui==0.98.1  
mysql-connector-python==8.0.22  
prettytable==1.0.1  
pyfiglet==0.8.post1  
PyPDF2==1.26.0  
pyttsx3==2.7  
termcolor==1.1.0  
tqdm==4.54.1  
pywin32  
beep==1.0.7  
plyer  
requests
```

requirements.txt



## Output Screens

```
Command Prompt - python "cs_project.py"
Microsoft Windows [Version 10.0.19041.685]
(c) 2020 Microsoft Corporation. All rights reserved.

C:\Users\user>cd C:\Users\user\Documents\Python\Harsh\CS_PROJECT_EMPS-main

C:\Users\user\Documents\Python\Harsh\CS_PROJECT_EMPS-main>python "cs_project .py"

=====

  MENU

[1] Enter 1 to use Employee Management System
[2] Enter 2 to use File Reader
[3] Enter 3 to use Covid Notification System

SUDO TECH INCORPORATION

Enter your choice:
```

MENU

```
Command Prompt - python "cs_project.py"
SUDO TECH INCORPORATION

Enter your choice:1

-----

[!] Connecting to Database !
[!] Initializing Database !
[!] Loading database records !
100%
DATABASE LOADED SUCCESSFULLY !
*****EMPLOYEE MANAGEMENT SYSTEM*****

  EMPS

options:

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

Type your option :
```

**Employee  
Management system  
(Selected)**

## Addition of record in database

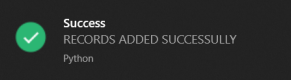
```
Command Prompt - python "cs_project.py"
[1] Loading database records !
100%
DATABASE LOADED SUCCESSFULLY !
*****EMPLOYEE MANAGEMENT SYSTEM*****

  E M S

options:

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

Type your option : 1
Enter Employee name :Khush Aggarwal
Enter gender [M]/[F] :M
Enter unique 5 Digit Employee ID:qwer1
Enter Designation :CFO
Enter age of Employee:25
Enter E-Mail id of Employee:khushaggarwal5@gmail.com
Enter Salary of Employee :812000
RECORD ADDED SUCCESSFULLY !
```



Notification was also displayed with a sound.

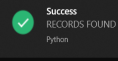
```
Command Prompt - python "cs_project.py"
Enter Designation :Financial Analyst
Enter age of Employee:37
Enter E-Mail id of Employee:harshad1992@scam.com
Enter Salary of Employee :75000
RECORD ADDED SUCCESSFULLY !

Want to continue type[y], else[n] :y

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

Type your option : 4
```

EmpName	Gender	EmpId	Designation	Age	Emp_Mail	Salary
KHUSH AGGARWAL	M	QWER1	CFO	25	khushaggarwal5@gmail.com	812000
SWATI NARANG	F	QWER2	PROJECT MANAGER	29	swati.narang252@gmail.com	96000
HARSH VISHWANARMA	M	QWER3	CEO	26	wd5188@gmail.com	1933000
JOYCE MICHELLE BAXLA	F	QWER4	SECRETARY	24	joycebaxla15@gmail.com	102400
UDIT JINDAL	M	QWER5	CTO	32	udit.jindal4@gmail.com	500000
SHIVANI JOSHI	F	QWER6	WEB DEVELOPER	19	jshiv.1@gmail.com	49000
PARUL SINGH	F	QWER7	JAVA PROGRAMMER	35	parulparul@gmail.com	67000
ANKUR KASHYAP	M	QWER8	MARKETING EXECUTIVE	28	ankurkashyap69@gmail.com	65000
KARISHMA VARSHNEY	F	QWER9	DATA SCIENTIST	40	msvarshney@gmail.com	150000
HARSHAD MEHTA	M	SCAM1	FINANCIAL ANALYST	37	harshad1992@scam.com	75000

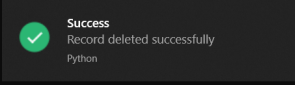


## Deleting record in database.

```
Command Prompt - python "cs_project.py"
Want to continue type[y], else[n] :y

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

Type your option : 2
Enter unique 5 Digit Employee ID:scam2
RECORD DELETED SUCCESSFULLY !
```



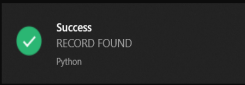
Notification was also displayed with a sound.

```
Command Prompt - python "cs_project.py"
Want to continue type[y], else[n] :y

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

Type your option : 5
Enter unique 5 Digit Employee ID:qwer2
```

EmpName	Gender	EmpId	Designation	Age	Emp_Mail	Salary
SWATI NARANG	F	QWER2	PROJECT MANAGER	29	swati.narang2521@gmail.com	96000



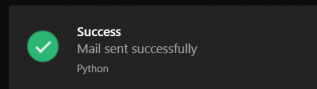
Searching record in database.

# Sending Mail to Employee

```
Command Prompt - python "cs_project.py"
options:

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

Type your option : 6
Enter EmpId of Employee:qwer1
Enter Subject of mail:Annual Budget Conference Meeting
Enter body of mail:It is to inform you Mr.Khush Aggarwal that the "Annual Budget Conference Meeting" is scheduled for 15th March, 2021. Please Acknowledge the
MAIL SENT SUCCESSFULLY TO KHUSH AGGARWAL whose EmpID is: QWER1
```



11:04 PM 16.3KB/s



Annual Budget Conference Meeting Inbox ☆

 sudocorporations... 11:03 PM to me

It is to inform you Mr.Khush Aggarwal that the "Annual Budget Conference Meeting" is scheduled for 15th March, 2021. Please Acknowledge the same.

Thank you  
Sudo Corporations

Notification was also displayed with a sound.

E-mail sent successfully!

← Reply

↩ Reply all

→ Forward



# Modifying records in database.

```
Command Prompt - python "cs_project.py"

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

Type your option : 4

+-----+-----+-----+-----+-----+-----+
| EmpName | Gender | EmpId | Designation | Age | Emp_Mail | Salary |
+-----+-----+-----+-----+-----+-----+
| KHUSH AGGARWAL | M | QWER1 | CFO | 25 | khushaggarwal5@gmail.com | 812000 |
| SWATI NARANG | F | QWER2 | PROJECT MANAGER | 29 | swati.narang2521@gmail.com | 96000 |
| HARSH VISHWAKARMA | M | QWER3 | CEO | 26 | wd51886@gmail.com | 1933000 |
| JOYCE MICHELLE BAXLA | F | QWER4 | SECRETARY | 24 | joycebaxla15@gmail.com | 102400 |
| UDIT JINDAL | M | QWER5 | CTO | 32 | udit.jindal4@gmail.com | 500000 |
| SHIVANI JOSHI | F | QWER6 | WEB DEVELOPER | 19 | jshiv.1@gmail.com | 49000 |
| PARUL SINGH | F | QWER7 | JAVA PROGRAMMER | 35 | parulparul@gmail.com | 67000 |
| ANKUR KASHYAP | M | QWER8 | MARKETING EXECUTIVE | 28 | ankurkashyap69@gmail.com | 65000 |
| KARISHMA VARSHNEY | F | QWER9 | DATA SCIENTIST | 40 | msvarshney@gmail.com | 150000 |
| HARSHAD MEHTA | M | SCAM1 | FINANCIAL ANALYST | 37 | harshad1992@scam.com | 75000 |
+-----+-----+-----+-----+-----+-----+

Success
RECORDS FOUND
Python
```

Table Before  
Modification  
of records

```
Command Prompt - python "cs_project.py"

Want to continue type[y], else[n] : y

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

Type your option : 3

[1]. EmpName
[2]. Gender
[3]. Designation
[4]. Age
[5]. Emp_Mail
[6]. Salary
[7]. Increase Salary by %
[8]. Decrease Salary by %

Enter your choice: _
```

Modification  
Menu

```
Command Prompt - python "c:\project.py"
[7]. EXIT THE PROGRAM
Type your option : 3

[1]. EmpName
[2]. Gender
[3]. Designation
[4]. Age
[5]. Emp_Mail
[6]. Salary
[7]. Increase Salary by %
[8]. Decrease Salary by %

Enter your choice:1
Enter unique 5 Digit Employee ID:qwer6
Enter new name :Shivam Gupta
NAME UPDATED SUCCESSFULLY TO : SHIVAM GUPTA
-

Update Successful
NAME UPDATED SUCCESSFULLY
Python
```

Modifying  
Employee Name

```
Command Prompt - python "c:\project.py"
Type your option : 3

[1]. EmpName
[2]. Gender
[3]. Designation
[4]. Age
[5]. Emp_Mail
[6]. Salary
[7]. Increase Salary by %
[8]. Decrease Salary by %

Enter your choice:2
Enter unique 5 Digit Employee ID:qwer6
Enter new gender [M]/[F]:M
GENDER UPDATED SUCCESSFULLY TO: M
-

Update Successful
GENDER UPDATED SUCCESSFULLY
Python
```

Modifying  
Employee  
Gender

```
Command Prompt - python "c:\project.py"
Type your option : 3

[1]. EmpName
[2]. Gender
[3]. Designation
[4]. Age
[5]. Emp_Mail
[6]. Salary
[7]. Increase Salary by %
[8]. Decrease Salary by %

Enter your choice:3
Enter unique 5 Digit Employee ID:qwer4
Enter New Designation:Senior Secretary
DESIGNATION UPDATED SUCCESSFULLY TO : SENIOR SECRETARY
-

Update Successful
DESIGNATION UPDATED SUCCESSFULLY
Python
```

Modifying  
Employee  
Designation

```
Command Prompt - python "c:\project.py"
Type your option : 3

[1]. EmpName
[2]. Gender
[3]. Designation
[4]. Age
[5]. Emp_Mail
[6]. Salary
[7]. Increase Salary by %
[8]. Decrease Salary by %

Enter your choice:4
Enter unique 5 Digit Employee ID:qwer2
Enter new age:30
AGE UPDATED SUCCESSFULLY TO :30

Update Successful
AGE UPDATED SUCCESSFULLY
Python
```

Modifying  
Employee Age

```
Command Prompt - python "c:\project.py"
Type your option : 3

[1]. EmpName
[2]. Gender
[3]. Designation
[4]. Age
[5]. Emp_Mail
[6]. Salary
[7]. Increase Salary by %
[8]. Decrease Salary by %

Enter your choice:5
Enter unique 5 Digit Employee ID:scam1
Enter new mail id :harshad1992@gmail.com
MAIL ID UPDATED SUCCESSFULLY TO:harshad1992@gmail.com

Update Successful
MAIL ID UPDATED SUCCESSFULLY
Python
```

Modifying  
Employee Email

```
Command Prompt - python "c:\project.py"
Type your option : 3

[1]. EmpName
[2]. Gender
[3]. Designation
[4]. Age
[5]. Emp_Mail
[6]. Salary
[7]. Increase Salary by %
[8]. Decrease Salary by %

Enter your choice:6
Enter unique 5 Digit Employee ID:qwer2
Enter updated Salary :100000
SALARY UPDATED SUCCESSFULLY TO: 100000

Want to continue type[y], else[n] :

Update Successful
SALARY UPDATED SUCCESSFULLY
Python
```

Modifying  
Employee Salary

```
Command Prompt - python "c:\project.py"
Type your option : 3

[1]. EmpName
[2]. Gender
[3]. Designation
[4]. Age
[5]. Emp_Mail
[6]. Salary
[7]. Increase Salary by %
[8]. Decrease Salary by %

Enter your choice:7
Enter unique 5 Digit Employee ID:qwer6
Enter the % by which salary to be Increased:11
SALARY HAS BEEN INCREASED BY 11%

Want to continue type[y], else[n] :
```

Update Successful  
Salary Increased!  
Python

Increasing  
Employee Salary

```
Command Prompt - python "c:\project.py"
Type your option : 3

[1]. EmpName
[2]. Gender
[3]. Designation
[4]. Age
[5]. Emp_Mail
[6]. Salary
[7]. Increase Salary by %
[8]. Decrease Salary by %

Enter your choice:8
Enter unique 5 Digit Employee ID:qwer5
Enter the % by which salary to be Decreased:5
SALARY HAS BEEN DECREASED BY 5%

Want to continue type[y], else[n] :
```

Update Successful  
Salary Decreased!  
Python

Decreasing  
Employee Salary

```
Command Prompt - python "c:\project.py"
Want to continue type[y], else[n] :y

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

Type your option : 4
```

EmpName	Gender	EmpId	Designation	Age	Emp_Mail	Salary
KHUSH AGGARWAL	M	QWER1	CFO	25	khushaggarwal5@gmail.com	812000
SWATI NARANG	F	QWER2	PROJECT MANAGER	30	swati.narang2521@gmail.com	100000
HARSH VISHWAKARMA	M	QWER3	CEO	26	wd51886@gmail.com	1933000
JOYCE MICHELLE BAXLA	F	QWER4	SENIOR SECRETARY	24	joycebaxla15@gmail.com	102400
UDIT JINDAL	M	QWER5	CTO	32	udit.jindal4@gmail.com	475000
SHIVAM GUPTA	M	QWER6	WEB DEVELOPER	19	jshiv.1@gmail.com	54300
PARUL SINGH	F	QWER7	JAVA PROGRAMMER	35	parulparul@gmail.com	67000
ANKUR KASHYAP	M	QWER8	MARKETING EXECUTIVE	28	ankurkashyap69@gmail.com	65000
KARISHMA VARSHNEY	F	QWER9	DATA SCIENTIST	40	msvarashney@gmail.com	150000
HARSHAD NEHTA	M	SCAM1	FINANCIAL ANALYST	37	harshad1992@gmail.com	75000

```
Want to continue type[y], else[n] :
```

Success  
RECORDS FOUND  
Python

Table after  
doing above  
modifications

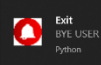
```
Command Prompt - python "cx_project.py"
Enter Employee name :Khush Aggarwal
Enter gender [M]/[F] :M
Enter unique 5 Digit Employee ID:qwer1
Enter Designation :CFO
Enter age of Employee:25
Enter E-Mail id of Employee:khushaggarwal5@gmail.com
Enter Salary of Employee :812000
RECORD ADDED SUCCESSFULLY !

Want to continue type[y], else[n] :y

[1]. ADD RECORD
[2]. DELETE RECORD
[3]. MODIFY RECORD
[4]. DISPLAY ALL RECORDS
[5]. SEARCH RECORDS
[6]. SEND A MAIL TO EMPLOYEE
[7]. EXIT THE PROGRAM

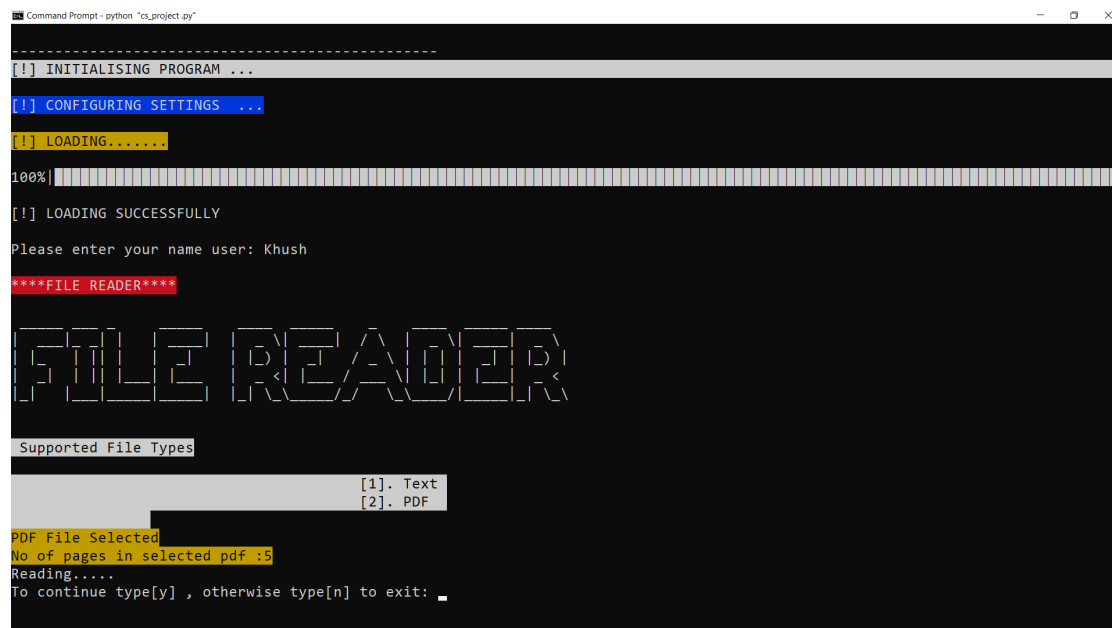
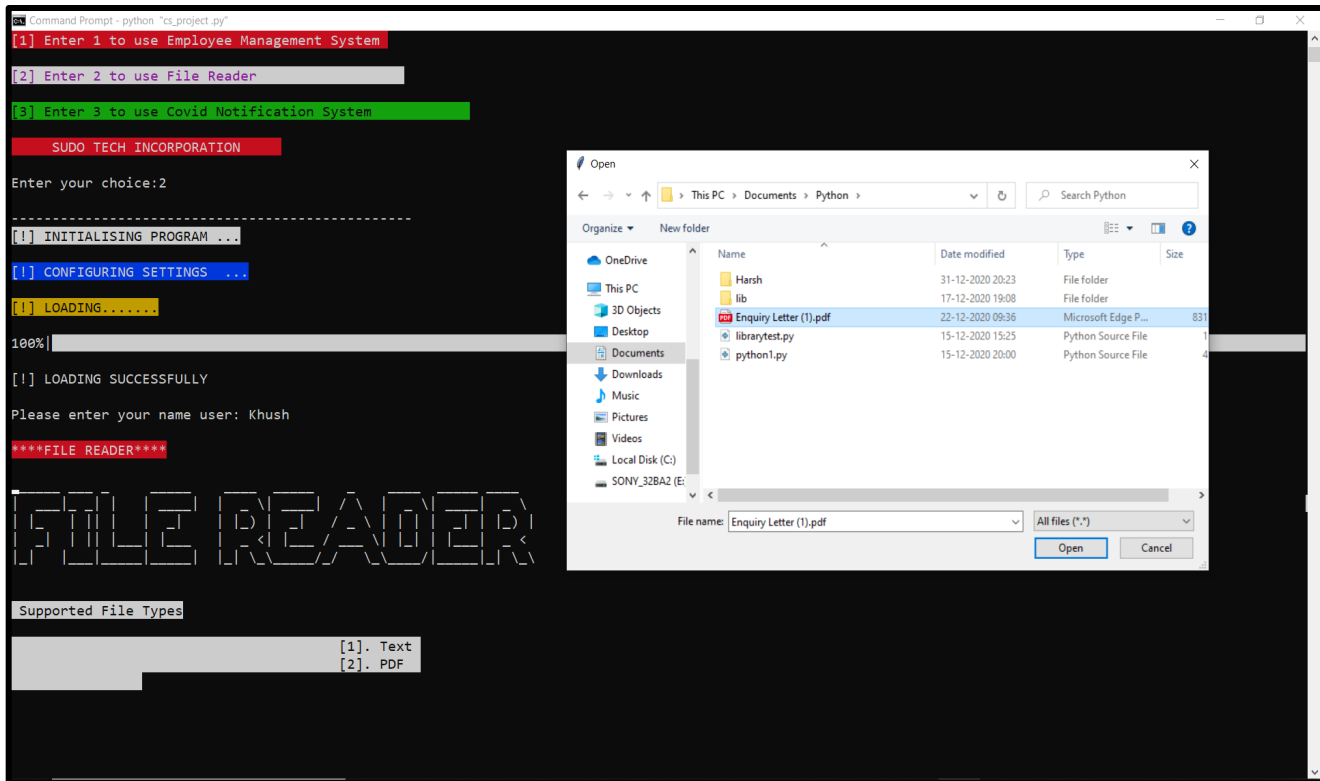
Type your option : 7
BYE USER !
```

Exit

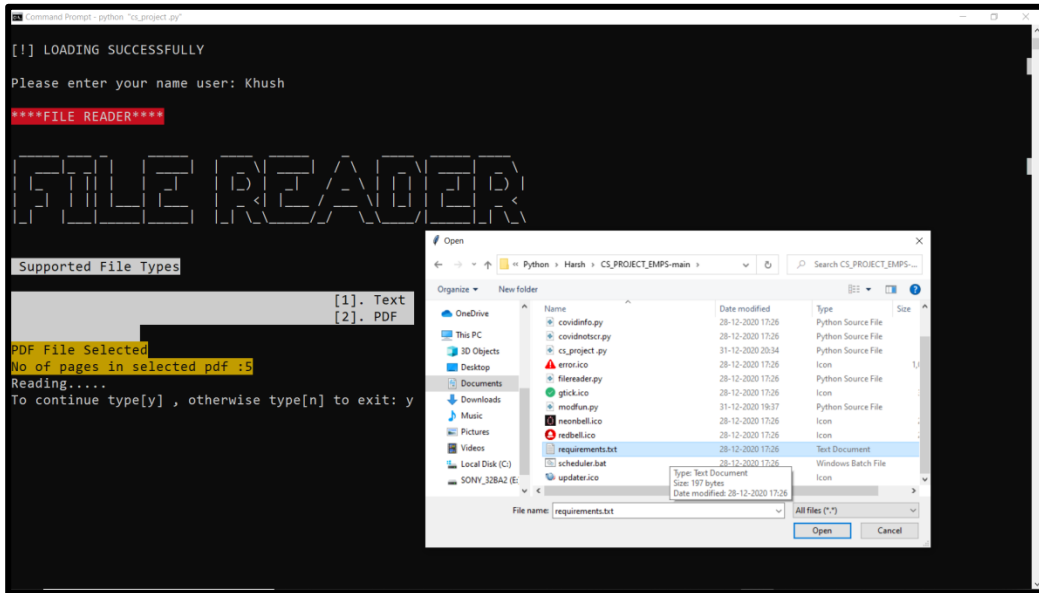


# File Reader

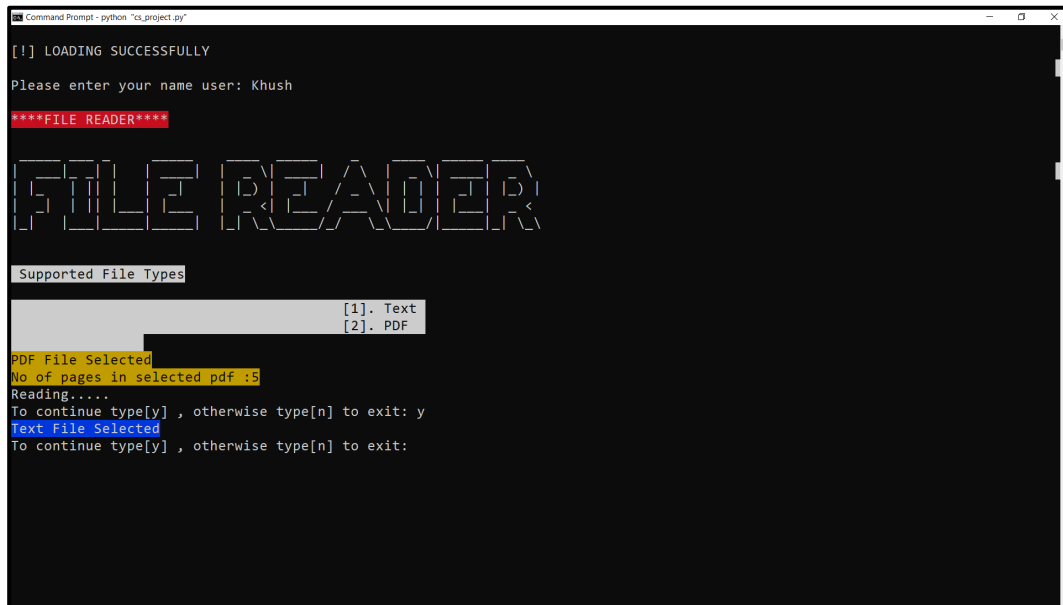
Selecting Pdf File  
from System



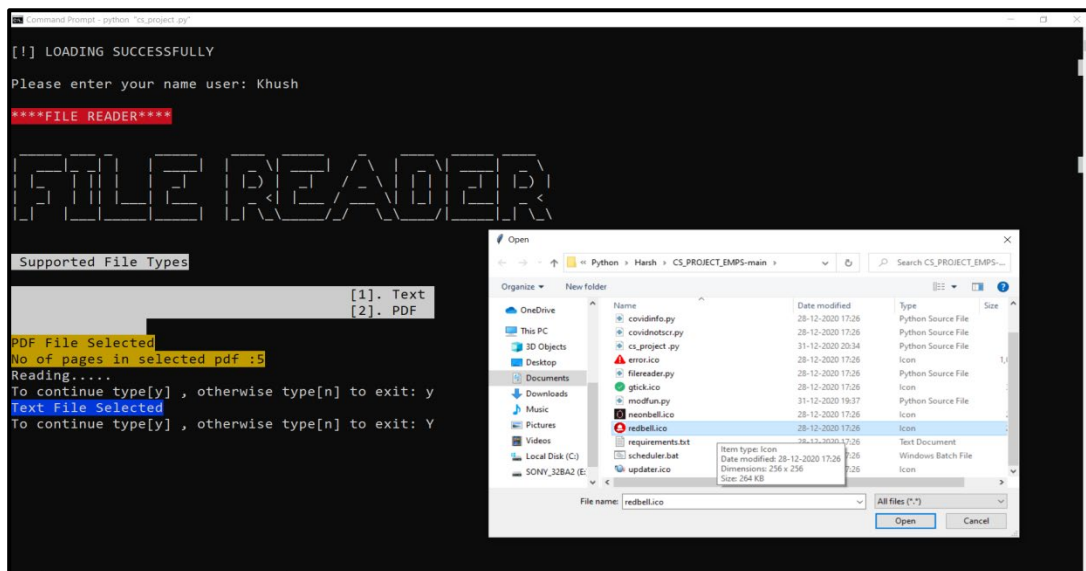
PDF File selected and  
was read by computer



Selecting Text File  
from System



Text File Selected  
and was read by  
computer



Unsupported file  
(.ico) has been  
selected

```
Command Prompt - python "cs_project.py"

[!] LOADING SUCCESSFULLY

Please enter your name user: Khush

***FILE READER***

FILE READER

Supported File Types

[1]. Text
[2]. PDF

PDF File Selected
No of pages in selected pdf :5
Reading.....
To continue type[y] , otherwise type[n] to exit: y
Text File Selected
To continue type[y] , otherwise type[n] to exit: Y
Unsupported file type
Only TEXT/PDF file type Supported!
To continue type[y] , otherwise type[n] to exit:
```

Unsupported file type  
error message  
displayed .

## CORONAVIRUS NOTIFICATION SYSTEM

```
Command Prompt - python "cs_project.py"

=====
MENU

[1] Enter 1 to use Employee Management System
[2] Enter 2 to use File Reader
[3] Enter 3 to use Covid Notification System

SUDO TECH INCORPORATION

Enter your choice:3

=====

COVID INFO NOTIFIER SYSTEM

After typing y you can close this program and
notification will be sent to you every 15 minutes

If you want notification every 15 minute type[y],else[n]:

Covid Info India
Total Cases: 10281229
Total Deaths: 148932
Cases Active: 257155
Recovered : 9875142
Python
```

Notification has been sent on the system regarding the corona  
virus updates in INDIA.



```
Command Prompt

=====
MENU

[1] Enter 1 to use Employee Management System
[2] Enter 2 to use File Reader
[3] Enter 3 to use Covid Notification System

SUDO TECH INCORPORATION

Enter your choice:3

=====

COVID_INFO_NOTIFIER_SYSTEM


After typing y you can close this program and
notification will be sent to you every 15 minutes

If you want notification every 15 minute type[y],else[n]:y

C:\Users\user\Documents\Python\Harsh\CS_PROJECT_EMPS-main>START pythonw.exe covidnotscr.py

C:\Users\user\Documents\Python\Harsh\CS_PROJECT_EMPS-main>exit
Notification Scheduled for every 15 minutes !

C:\Users\user\Documents\Python\Harsh\CS_PROJECT_EMPS-main>
```

**Covid Info India**

Total Cases:	10281229
Total Deaths:	148932
Cases Active:	257155
Recovered :	9875142
Python	

Push-notifications scheduled for every 15 minutes .

# Database and Tables used in MYSQL

**TABLE: EMPREC**

MySQL 8.0 Command Line Client

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Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

```
mysql> use emplmgs;
Database changed
mysql> select * from emprec;
```

empname	gender	EmpId	designation	age	emp_mail	salary
KHUSH AGGARWAL	M	QWER1	CFO	25	khushaggarwal5@gmail.com	812000
SWATI NARANG	F	QWER2	PROJECT MANAGER	30	swati.narang2521@gmail.com	100000
HARSH VISHWAKARMA	M	QWER3	CEO	26	wd51886@gmail.com	1933000
JOYCE MICHELLE BAXLA	F	QWER4	SENIOR SECRETARY	24	joycebaxla15@gmail.com	102400
UDIT JINDAL	M	QWER5	CTO	32	udit.jindal4@gmail.com	475000
SHIVAM GUPTA	M	QWER6	WEB DEVELOPER	19	jshiv.1@gmail.com	54390
PARUL SINGH	F	QWER7	JAVA PROGRAMMER	35	parulparul@gmail.com	67000
ANKUR KASHYAP	M	QWER8	MARKETING EXECUTIVE	28	ankurkashyap69@gmail.com	65000
KARISHMA VARSHNEY	F	QWER9	DATA SCIENTIST	40	msvarshney@gmail.com	150000
HARSHAD MEHTA	M	SCAM1	FINANCIAL ANALYST	37	harshad1992@gmail.com	75000

10 rows in set (0.00 sec)

```
mysql> _
```

**STRUCTURE OF TABLE**

MySQL 8.0 Command Line Client

```
10 rows in set (0.00 sec)

mysql> desc emprec;
```

Field	Type	Null	Key	Default	Extra
empname	varchar(30)	NO		NULL	
gender	char(1)	NO		NULL	
EmpId	char(5)	NO	PRI	NULL	
designation	varchar(20)	NO		NULL	
age	int	NO		NULL	
emp_mail	varchar(30)	NO		NULL	
salary	int	NO		NULL	

7 rows in set (0.00 sec)

```
mysql> _
```

# BIBLIOGRAPHY

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➤ COMPUTER SCIENCE WITH PYTHON  
SUMITA ARORA CLASS XI

➤ COMPUTER SCIENCE WITH PYTHON  
SUMITA ARORA CLASS XII