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| **DUTTA COMPUTER ACADEMY** |
| Python Programming Project Report Project Topic: <Write Project Name Here> |
| Name of the student: Soujatya Bhattacharya  Enrolment No:  Mobile No: 7044944946 |
|  |

**Project Title:**  **Tic-Tac-Toe Game**

**Software Requirements: Python 3.7.6 , Spider IDE**

**Short description of the project:**

Tic-tac-toe, noughts and crosses, or Xs and Os is a paper-and-pencil game for two players, X and O, who take turns marking the spaces in a 3×3 grid. The player who succeeds in placing three of their marks in a horizontal, vertical, or diagonal row is the winne

**Source Code:**

**# -\*- coding: utf-8 -\*-**

**"""**

**Created on Fri Jul 10 19:25:39 2020**

**@author: Sourick**

**"""**

**from tkinter import \***

**from tkinter import messagebox**

**import tkinter.font as font**

**top = Tk()**

**top.title("Free Tic Tac Toe")**

**top.geometry("300x320")**

**top.resizable(0,0)**

**canvas = Canvas()**

**top.config(bg = "yellow")**

**top.withdraw()**

**cell\_counter = tie = 0**

**Switch = 0**

**players\_score = player1\_score = player2\_score = 0**

**def checking():**

**value1 = text1.get()**

**value2 = text2.get()**

**value3 = text3.get()**

**value4 = text4.get()**

**value5 = text5.get()**

**value6 = text6.get()**

**value7 = text7.get()**

**value8 = text8.get()**

**value9 = text9.get()**

**if cell\_counter != 9:**

**if((value1 == 'X') and (value2 == 'X') and (value3 == 'X')**

**or (value1 == 'O') and (value2 == 'O') and (value3 == 'O')):**

**declear\_winner(value1)**

**elif((value4 == 'X') and (value5 == 'X') and (value6 == 'X')**

**or (value4 == 'O') and (value5 == 'O') and (value6 == 'O')):**

**declear\_winner(value5)**

**elif((value7 == 'X') and (value8 == 'X') and (value9 == 'X')**

**or (value7 == 'O') and (value8 == 'O') and (value9 == 'O')):**

**declear\_winner(value7)**

**elif((value1 == 'X') and (value5 == 'X') and (value9 == 'X')**

**or (value1 == 'O') and (value5 == 'O') and (value9 == 'O')):**

**declear\_winner(value1)**

**elif((value3 == 'X') and (value5 == 'X') and (value7 == 'X')**

**or (value3 == 'O') and (value5 == 'O') and (value7 == 'O')):**

**declear\_winner(value3)**

**elif((value1 == 'X') and (value4 == 'X') and (value7 == 'X')**

**or (value1 == 'O') and (value4 == 'O') and (value7 == 'O')):**

**declear\_winner(value4)**

**elif((value2 == 'X') and (value5 == 'X') and (value8 == 'X')**

**or (value2 == 'O') and (value5 == 'O') and (value8 == 'O')):**

**declear\_winner(value2)**

**elif((value3 == 'X') and (value6 == 'X') and (value9 == 'X')**

**or (value3 == 'O') and (value6 == 'O') and (value9 == 'O')):**

**declear\_winner(value3)**

**else:**

**declear\_winner(0)**

**def lock():**

**global cell\_counter**

**cell\_counter += 1**

**value1,value2,value3,value4,value5 = text1.get(),text2.get(),text3.get(),text4.get(),text5.get()**

**value6,value7,value8,value9 = text6.get(),text7.get(),text8.get(),text9.get()**

**if (len(value1) > 0):**

**text1['state'] = 'disabled'**

**if (len(value2) > 0):**

**text2['state'] = 'disabled'**

**if (len(value3) > 0):**

**text3['state'] = 'disabled'**

**if (len(value4) > 0):**

**text4['state'] = 'disabled'**

**if (len(value5) > 0):**

**text5['state'] = 'disabled'**

**if (len(value6) > 0):**

**text6['state'] = 'disabled'**

**if (len(value7) > 0):**

**text7['state'] = 'disabled'**

**if (len(value8) > 0):**

**text8['state'] = 'disabled'**

**if (len(value9) > 0):**

**text9['state'] = 'disabled'**

**print(cell\_counter)**

**checking()**

**def declear\_winner(player):**

**global player1\_score,player2\_score,players\_score**

**if player == player1 :**

**name = "Player 1 is Win"**

**player1\_score = player1\_score + 1**

**elif player == player2:**

**name = "Player 2 is Win"**

**player2\_score = player2\_score + 1**

**else:**

**name = "Match has been Tie"**

**messagebox.showinfo("Result",name)**

**players\_score = "Scores " + "\n Player 1 :" + str(player1\_score) + " Player 2 :" + str(player2\_score)**

**label2.config(text = players\_score)**

**def reset():**

**global cell\_counter**

**n = messagebox.askquestion("Confirmation","Do You Want to play again ?")**

**if n == 'yes' :**

**text1['state'] = 'normal'**

**text2['state'] = 'normal'**

**text3['state'] = 'normal'**

**text4['state'] = 'normal'**

**text5['state'] = 'normal'**

**text6['state'] = 'normal'**

**text7['state'] = 'normal'**

**text8['state'] = 'normal'**

**text9['state'] = 'normal'**

**text1.delete(0, END)**

**text2.delete(0, END)**

**text3.delete(0, END)**

**text4.delete(0, END)**

**text5.delete(0, END)**

**text6.delete(0, END)**

**text7.delete(0, END)**

**text8.delete(0, END)**

**text9.delete(0, END)**

**cell\_counter = 0**

**player1 = simpledialog.askstring("Simple Tik Tac Tue Game", "Player 1 Choice (Only press X or O :")**

**player2 = simpledialog.askstring("Simple Tik Tac Tue Game", "Player 2 Choice (Only press X or O :")**

**top.deiconify()**

**players = "Player 1 : " + player1 + "\n" + "Player 2 : " + player2**

**#Formattings**

**canvas.create\_line(5, 75, 320, 75,width = 8)**

**canvas.create\_line(5, 125, 320, 125,width = 8)**

**canvas.create\_line(105, 6, 105, 200,width = 8)**

**canvas.create\_line(196, 6, 196, 200,width = 8)**

**canvas.pack()**

**myfont = font.Font(size=15)**

**#One Box**

**text1 = Entry(top,text = ".", width = "7",fg = "#7F00FF")**

**text1.place(x = 20, y = 30,height = "40")**

**text1['font'] = myfont**

**#**

**text2 = Entry(top,text = "..",width = "7")**

**text2.place(x = 110, y = 30,height = "40")**

**text2['font'] = myfont**

**text3 = Entry(top,width = "7")**

**text3.place(x = 200, y = 30,height = "40")**

**text3['font'] = myfont**

**text4 = Entry(top,width = "7")**

**text4.place(x = 20, y = 80,height = "40")**

**text4['font'] = myfont**

**text5 = Entry(top,width = "7")**

**text5.place(x = 110, y = 80,height = "40")**

**text5['font'] = myfont**

**text6 = Entry(top,width = "7")**

**text6.place(x = 200, y = 80,height = "40")**

**text6['font'] = myfont**

**text7 = Entry(top,width = "7")**

**text7.place(x = 20, y = 130,height = "40")**

**text7['font'] = myfont**

**text8 = Entry(top,width = "7")**

**text8.place(x = 110, y = 130,height = "40")**

**text8['font'] = myfont**

**text9 = Entry(top,width = "7")**

**text9.place(x = 200, y = 130,height = "40")**

**text9['font'] = myfont**

**label1 = Label(top,text = players,bg = "black", fg = "light green")**

**label1.place(x = 20, y = 180,height = "40")**

**button1 = Button(top,text = "Make Final",bg = "Green",fg = "White",height = "2",command = lock).place(x = 116,y = 180)**

**button2 = Button(top,text = "New Game",bg = "Red",fg = "White",height = "2",width = "8",command = reset).place(x = 210,y = 180)**

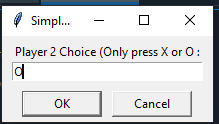
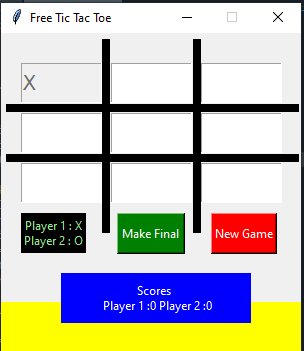
**players\_score = "Scores " + "\n Player 1 :" + str(player1\_score) + " Player 2 :" + str(player2\_score)**

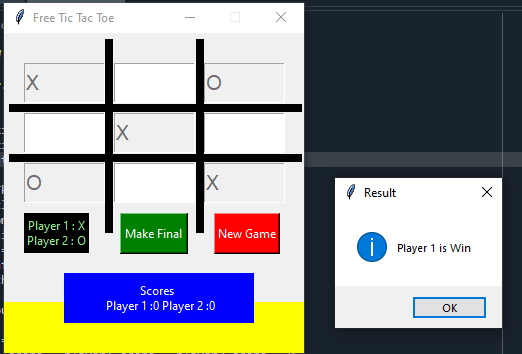
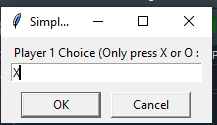
**label2 = Label(top,text = players\_score,bg = "Blue", fg = "white")**

**label2.place(x = 60, y = 240,height = "50",width = "190")**

**top.mainloop()**

**Output Snippets:**

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**Project Title:**  **Notepad Application**

**Software Requirements: Python 3.7.6, Spider IDE**

**Short description of the project:**

This application has been developed to write some information by it and store that information into various extensions

**Source Code:**

**# -\*- coding: utf-8 -\*-**

**"""**

**Created on Tue Jul 21 19:05:52 2020**

**@author: Sourick**

**"""**

**from tkinter import \***

**from tkinter.messagebox import \***

**from tkinter.filedialog import askopenfilename, asksaveasfilename**

**import pyglet**

**from pyglet.window import key**

**import os**

**top = Tk()**

**top.minsize(640,402)**

**file = None**

**back\_counter = string\_count = 0**

**copied\_data = " "**

**top.title("Untitled - Notepad")**

**top.wm\_iconbitmap("notepad\_icon.ico")**

**TextArea = Text(top,font = "verdana")**

**TextArea.pack(expand=True,fill=BOTH)**

**def ex():**

**top.destroy()**

**def new():**

**global file**

**file = None**

**top.title("Untitled - Notepad")**

**TextArea.delete(1.0,END)**

**def openf():**

**global file**

**file = askopenfilename(defaultextension=".txt",**

**filetypes=[("All Files", "\*.\*"),**

**("Text Documents", "\*.txt")])**

**if file == "":**

**file = None**

**else:**

**top.title(os.path.basename(file) + "- SS Notepad")**

**TextArea.delete(1.0, END)**

**fpt = open(file, "r")**

**TextArea.insert(1.0, fpt.read())**

**fpt.close()**

**def save():**

**global file**

**if file == None:**

**file = asksaveasfilename(initialfile = 'Untitled.txt', defaultextension=".txt",**

**filetypes=[("All Files", "\*.\*"),**

**("Text Documents", "\*.txt")])**

**if file == "":**

**file = None**

**else:**

**top.title(os.path.basename(file) + "- SS Notepad")**

**fpt = open(file,"w")**

**fpt.write(TextArea.get(1.0,END))**

**fpt.close()**

**else:**

**top.title(os.path.basename(file) + "- SS Notepad")**

**fpt = open(file,"w")**

**fpt.write(TextArea.get(1.0,END))**

**fpt.close()**

**def find():**

**global string\_count**

**find = simpledialog.askstring("Find String", "Enter String :")**

**textarea1 = str(TextArea.get(1.0,END))**

**string\_count = textarea1.count(find)**

**messagebox.showinfo("String Found","The Number of string is : " + str(string\_count))**

**def find\_replace():**

**find = simpledialog.askstring("Find String", "Enter String :")**

**replace = simpledialog.askstring("Replace String", "Enter String :")**

**textarea1 = str(TextArea.get(1.0,END))**

**NEW = textarea1.replace(find,replace)**

**#Content Overwriting**

**TextArea.delete(1.0,END)**

**TextArea.insert(1.0,NEW)**

**messagebox.showinfo("String Found","Replace Done!!!")**

**def cut():**

**TextArea.event\_generate('<Control-x>')**

**def copy():**

**TextArea.event\_generate('<Control-c>')**

**def paste():**

**TextArea.event\_generate('<Control-v>')**

**def selectALL():**

**TextArea.event\_generate('<Control-a>')**

**def about():**

**message = "Developed By: Soujatya Bhattacharya\n Version : 1.0"**

**messagebox.showinfo("About",message)**

**def undo():**

**TextArea.delete(1.0,END)**

**TextArea.insert(1.0,copied\_data)**

**def key(event):**

**global back\_counter,copied\_data**

**if event.keysym == 'space':**

**if(back\_counter > 0):**

**copied\_data = TextArea.get(1.0,END)**

**back\_counter = 0**

**else:**

**back\_counter += 1**

**menubar = Menu(top)**

**#File Submenu**

**File = Menu(menubar)**

**File.add\_command(label = "New",command = new)**

**File.add\_command(label = "Open",command = openf)**

**File.add\_command(label = "Save",command = save)**

**File.add\_separator()**

**File.add\_command(label = "Exit", command = ex)**

**menubar.add\_cascade(label="File", menu=File)**

**#Edit Submenu**

**Edit = Menu(menubar)**

**Edit.add\_command(label = "Cut",command = cut)**

**Edit.add\_command(label = "Copy",command = copy)**

**Edit.add\_command(label = "Paste",command = paste)**

**Edit.add\_command(label = "Undo",command = undo)**

**Edit.add\_separator()**

**Edit.add\_command(label = "Find",command = find)**

**Edit.add\_command(label = "Find & Replace",command = find\_replace)**

**Edit.add\_command(label = "Select All",command = selectALL)**

**menubar.add\_cascade(label="Edit", menu=Edit)**

**#Others**

**Help = Menu(menubar)**

**Help.add\_command(label="About",command=about)**

**menubar.add\_cascade(label="About", menu=Help)**

**top.config(menu = menubar)**

**#Scrollbar**

**Scroll = Scrollbar(TextArea)**

**Scroll.pack(side=RIGHT, fill=Y)**

**Scroll.config(command=TextArea.yview)**

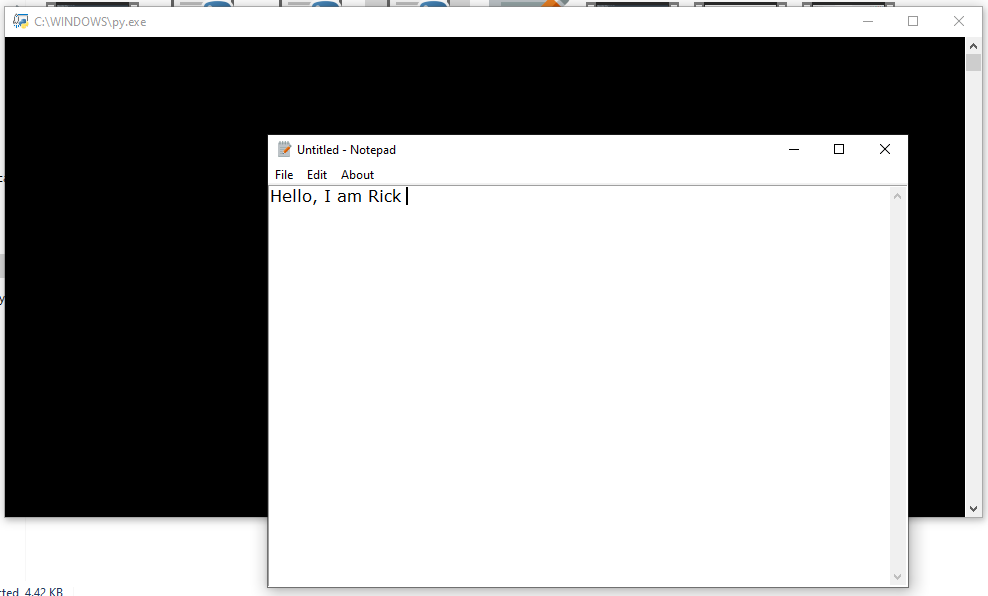
**TextArea.config(yscrollcommand=Scroll.set)**

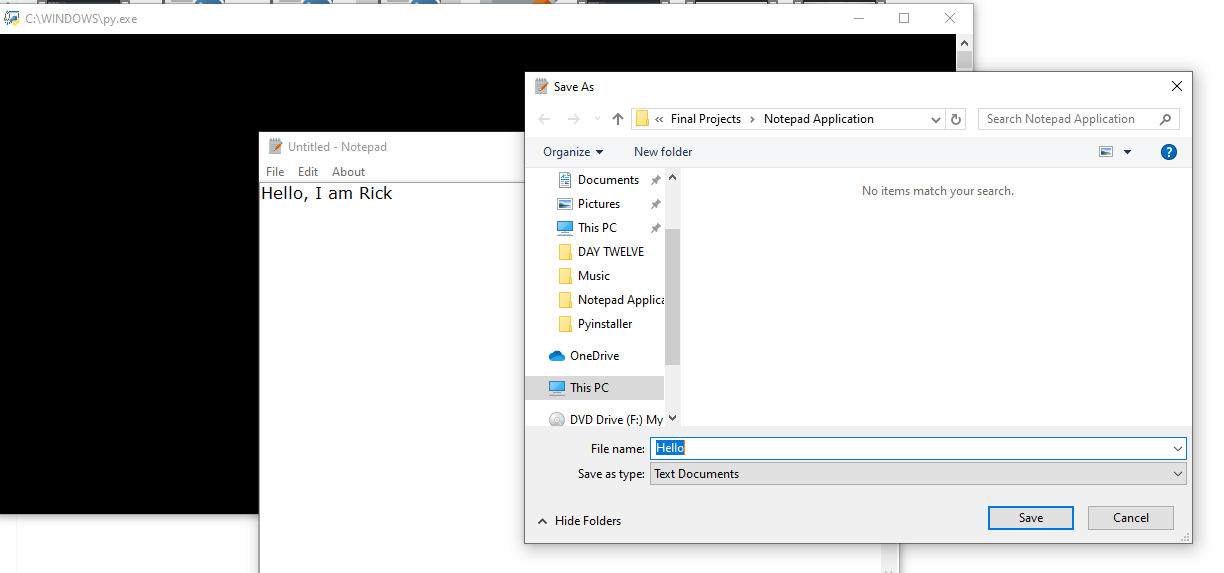
**#Evet call**

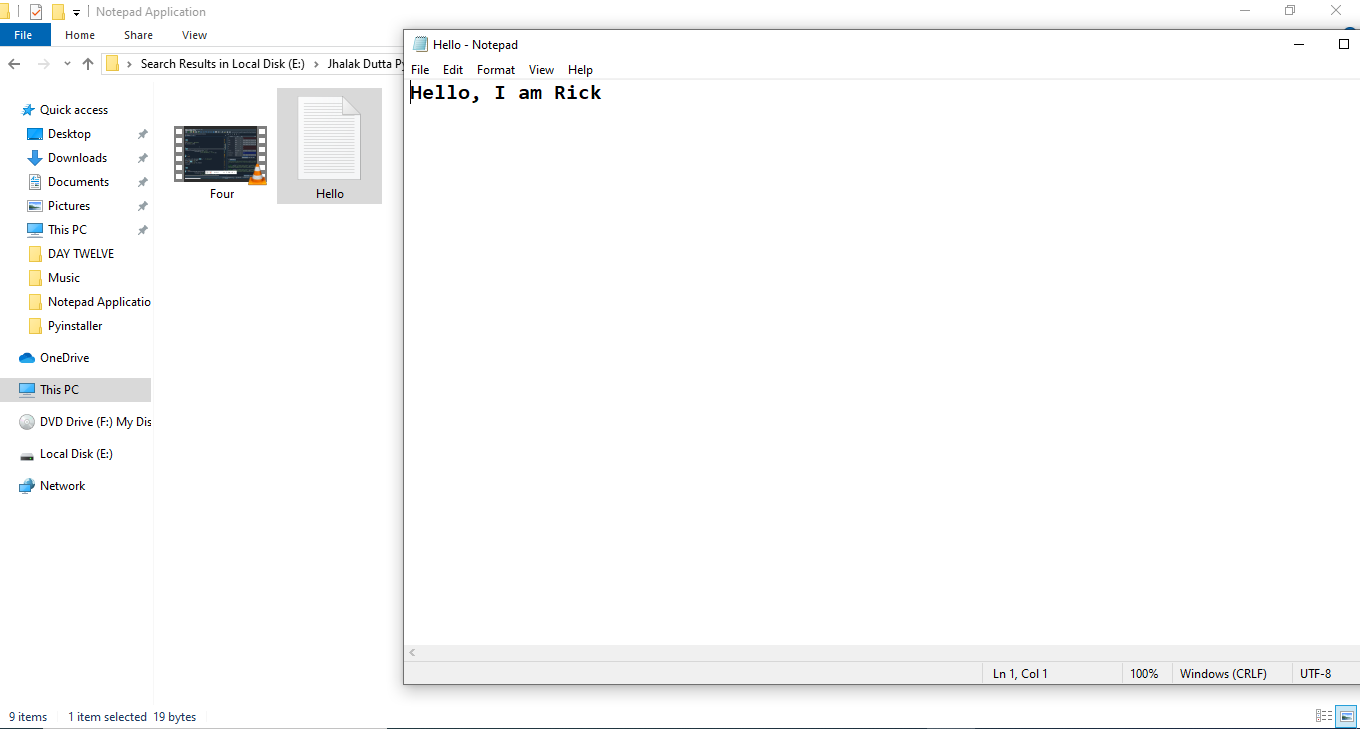
**top.bind\_all('<Key>', key)**

**top.mainloop()**

**Output Snippets:**

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**Project Title:**  **Form Application**

**Software Requirements: Python 3.7.6, Spider IDE**

**Short description of the project:**

This application a simple API of file system. It takes some input through some text boxes and save those inputs into a file. This API divided into a 3 parts:-

1. Signup.py
2. Sign in.py
3. User\_details.py

**Code for Signup.py**

# -\*- coding: utf-8 -\*-

"""

Created on Sun Jul 19 09:34:45 2020

@author: Sourick

"""

from tkinter import \*

import smtplib

import random

from tkinter import messagebox

server = True

OTP = 0

top = Tk()

top.geometry("355x400")

top.resizable(0,0)

top.title("Signup")

top.config(bg = "yellow")

def reset():

text1.delete(0, END)

text2.delete(0, END)

text3.delete(0, END)

text4.delete(0, END)

email.delete(0, END)

password.delete(0, END)

confirm\_password.delete(0, END)

otp.delete(0, END)

def sendmail():

global OTP,server

OTP = random.randint(100000, 999999)

server=smtplib.SMTP\_SSL('smtp.gmail.com',465)

server.login("Admin@mail.com","admin")

OTP = str(OTP)

mail = email.get()

server.sendmail("Admin@mail.com",mail,OTP)

messagebox.showinfo("Sending Successful","OTP has send to your email")

def save():

global otp

fpt = open("record.txt","a")

name = text1.get()

address = text2.get()

phone\_number = text3.get()

dob = text4.get()

mail = email.get()

password1 = password.get()

conf\_password1 = confirm\_password.get()

otp\_new = otp.get()

if ((len(name) > 0) and (len(phone\_number) > 0) and (len(dob) > 0) and (len(mail) > 0) and (len(password1) > 0) and (len(conf\_password1) > 0) and (len(otp\_new) > 0)):

if password1 == conf\_password1:

if OTP == otp\_new:

details = name + ' ' + address + ' ' + str(phone\_number) + ' ' + dob + ' ' + str (mail) + ' ' + str(conf\_password1) + ' ' +'\n'

fpt.write(details)

fpt.close()

messagebox.showinfo("Conglatunation","Your account has been created")

else:

messagebox.showerror("Failure","OTP has not mathched. Press Send OTP button and try again")

otp.config(text = " ")

else:

messagebox.showerror("Failure","Your account has been created")

else:

messagebox.showerror("Failure","Textboxes are empty")

text1.delete(0, END)

text2.delete(0, END)

text3.delete(0, END)

text4.delete(0, END)

email.delete(0, END)

password.delete(0, END)

confirm\_password.delete(0, END)

otp.delete(0, END)

label1 = Label(top,text = "Enter Your full Name : ",bg = "yellow").place(x = 5, y = 20)

text1 = Entry(top,width = "30")

text1.place(x = 160, y = 20)

label2 = Label(top,text = "Enter Address: ",bg = "yellow").place(x = 17, y = 60)

text2 = Entry(top,width = "30")

text2.place(x = 160, y = 60)

label3 = Label(top,text = "Phone Number : ",bg = "yellow").place(x = 17, y = 100)

text3 = Entry(top,width = "30")

text3.place(x = 160, y = 100)

label4 = Label(top,text = "Enter DOB (dd/mm/yyyy): ",bg = "yellow").place(x = 5, y = 140)

text4 = Entry(top,width = "30")

text4.place(x = 160, y = 140)

label5 = Label(top,text = "Email ID: ",bg = "yellow").place(x = 30, y = 180)

email = Entry(top)

email.place(x = 160, y = 180)

send\_otp = Button(text = "Send OTP",command = sendmail).place(x = 290, y = 180)

label6 = Label(top,text = "Enter Password ",bg = "yellow").place(x = 17, y = 220)

password = Entry(top,show = "\*",width = "30")

password.place(x = 160, y = 220)

label7 = Label(top,text = "Enter confirm password: ",bg = "yellow").place(x = 5, y = 260)

confirm\_password = Entry(top,show = "\*",width = "30")

confirm\_password.place(x = 160, y = 260)

label7 = Label(top,text = "Enter confirm OTP",bg = "yellow").place(x = 5, y = 300)

otp = Entry(top,width = "30")

otp.place(x = 160, y = 300)

submit = Button(text = "Submit",bg = "green",fg = "white",width = "15",command = save).place(x = 60, y = 340)

reset = Button(text = "Reset",bg = "red",fg = "white",width = "15", command = reset).place(x = 180, y = 340)

top.mainloop()

**Code for Signin.py**

# -\*- coding: utf-8 -\*-

"""

Created on Sun Jul 19 12:45:38 2020

@author: Sourick

"""

from tkinter import \*

from tkinter import messagebox

top = Tk()

top.geometry("230x160")

top.resizable(0,0)

top.title("Signin")

top.config(bg = "cyan")

a = ' '

flag1 = 0

fpt = ''

def opn():

global fpt

fpt = open("record.txt","r")

def reset():

email.delete(0, END)

password.delete(0, END)

def check(a):

global new\_list

new\_list = list(a.split(' '))

email\_check = new\_list.count(email.get())

password\_check = new\_list.count(password.get())

if email\_check > 0 and password\_check > 0:

return True

else:

return False

def add():

opn()

global fpt,flag1,new\_list,a

for line in fpt:

a = line

flag = check(a)

if flag == True:

flag1 = 1

break

if flag1 == 1:

messagebox.showinfo("Conglatunation","Welcome to our portal")

messagebox.showinfo("Information","Please goto the user\_details application")

file = open("about.txt","w")

file.write(a)

file.close()

top.destroy()

else:

messagebox.showerror("Failure","Password or Email has not matched")

password.delete(0, END)

fpt.close()

label1 = Label(top,text = "Email ID : ",bg = "cyan").place(x = 20, y = 20)

email = Entry(top)

email.place(x = 84, y = 20)

label2 = Label(top,text = "Password: ",bg = "cyan").place(x = 20, y = 60)

password = Entry(top,show = "\*")

password.place(x = 84, y = 60)

submit = Button(text = "Submit",bg = "green",fg = "white",width = "8",command = add).place(x = 40, y = 100)

reset = Button(text = "Reset",bg = "red",fg = "white",width = "8",command = reset).place(x = 120, y = 100)

top.mainloop()

**Code for User\_details.py**

# -\*- coding: utf-8 -\*-

"""

Created on Mon Jul 20 10:01:21 2020

@author: Sourick

"""

from tkinter import \*

top = Tk()

top.geometry("240x200")

top.title("User Details")

top.resizable(0,0)

top.config(bg = "pink")

def gapping(n):

name = ''

for i in range(0,len(n)):

if n[i] >= 'A' and n[i] <= 'Z' and i != 0 :

name += ' ' + n[i]

else:

name += n[i]

return name

def display():

fpt = open("about.txt","r")

new\_string = str(fpt.read())

new\_list = list(new\_string.split(' '))

name = "Name : " + gapping(new\_list[0])

var1.set(name)

address = "Address : " + gapping(new\_list[1])

var2.set(address)

phone = "Phone Number : " + gapping(new\_list[2])

var3.set(phone)

date = "DOB : " + gapping(new\_list[3])

var4.set(date)

email = "Email : " + gapping(new\_list[4])

var5.set(email)

var1 = StringVar()

var2 = StringVar()

var3 = StringVar()

var4 = StringVar()

var5 = StringVar()

label1 = Label(top,text = "", textvariable=var1, bg = "pink").place(x = 25, y = 20)

label2 = Label(top,text = "",textvariable=var2,bg = "pink").place(x = 25, y = 50)

label3 = Label(top,text = "",textvariable=var3,bg = "pink").place(x = 25, y = 80)

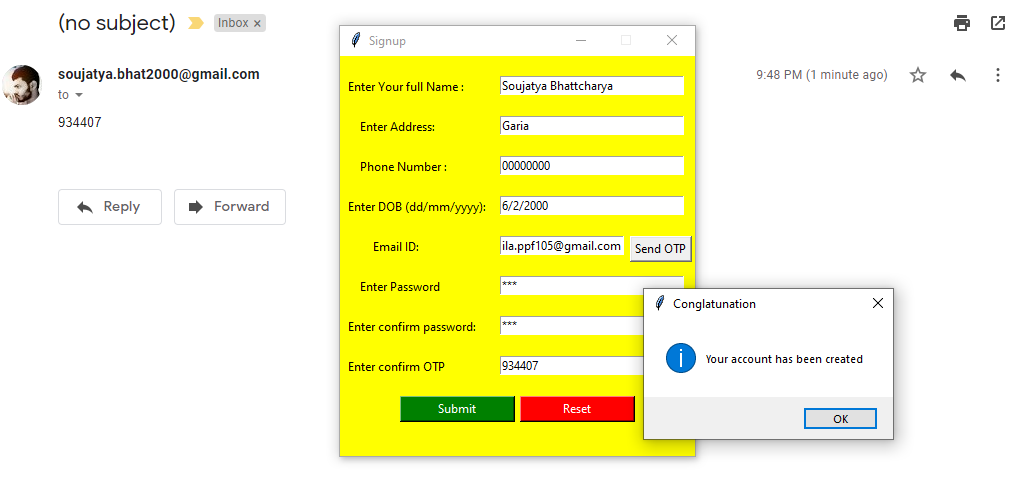
label3 = Label(top,text = "",textvariable=var4,bg = "pink").place(x = 25, y = 110)

label3 = Label(top,text = "",textvariable=var5,bg = "pink").place(x = 25, y = 140)

display()

top.mainloop()

**Output Snippets:**

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