import tkinter as tk

from tkinter import messagebox

from time import gmtime, strftime

def is\_number(s):

try:

float(s)

return 1

except ValueError:

return 0

def check\_acc\_nmb(num):

try:

fpin=open(num+".txt",'r')

except FileNotFoundError:

messagebox.showinfo("Error","Invalid Credentials!\nTry Again!")

return 0

fpin.close()

return

def home\_return(master):

master.destroy()

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def write(master,name,oc,pin):

if( (is\_number(name)) or (is\_number(oc)==0) or (is\_number(pin)==0)or name==""):

messagebox.showinfo("Error","Invalid Credentials\nPlease try again.")

master.destroy()

return

f1=open("Accnt\_Record.txt",'r')

accnt\_no=int(f1.readline())

accnt\_no+=1

f1.close()

f1=open("Accnt\_Record.txt",'w')

f1.write(str(accnt\_no))

f1.close()

fdet=open(str(accnt\_no)+".txt","w")

fdet.write(pin+"\n")

fdet.write(oc+"\n")

fdet.write(str(accnt\_no)+"\n")

fdet.write(name+"\n")

fdet.close()

frec=open(str(accnt\_no)+"-rec.txt",'w')

frec.write("Date Credit Debit Balance\n")

frec.write(str(strftime("[%Y-%m-%d] [%H:%M:%S] ",gmtime()))+" "+oc+" "+oc+"\n")

frec.close()

messagebox.showinfo("Details","Your Account Number is:"+str(accnt\_no))

master.destroy()

return

def crdt\_write(master,amt,accnt,name):

if(is\_number(amt)==0):

messagebox.showinfo("Error","Invalid Credentials\nPlease try again.")

master.destroy()

return

fdet=open(accnt+".txt",'r')

pin=fdet.readline()

camt=int(fdet.readline())

fdet.close()

amti=int(amt)

cb=amti+camt

fdet=open(accnt+".txt",'w')

fdet.write(pin)

fdet.write(str(cb)+"\n")

fdet.write(accnt+"\n")

fdet.write(name+"\n")

fdet.close()

frec=open(str(accnt)+"-rec.txt",'a+')

frec.write(str(strftime("[%Y-%m-%d] [%H:%M:%S] ",gmtime()))+" "+str(amti)+" "+str(cb)+"\n")

frec.close()

messagebox.showinfo("Operation Successfull!!","Amount Credited Successfully!!")

master.destroy()

return

def debit\_write(master,amt,accnt,name):

if(is\_number(amt)==0):

messagebox.showinfo("Error","Invalid Credentials\nPlease try again.")

master.destroy()

return

fdet=open(accnt+".txt",'r')

pin=fdet.readline()

camt=int(fdet.readline())

fdet.close()

if(int(amt)>camt):

messagebox.showinfo("Error!!","You dont have that amount left in your account\nPlease try again.")

else:

amti=int(amt)

cb=camt-amti

fdet=open(accnt+".txt",'w')

fdet.write(pin)

fdet.write(str(cb)+"\n")

fdet.write(accnt+"\n")

fdet.write(name+"\n")

fdet.close()

frec=open(str(accnt)+"-rec.txt",'a+')

frec.write(str(strftime("[%Y-%m-%d] [%H:%M:%S] ",gmtime()))+" "+" "+str(amti)+" "+str(cb)+"\n")

frec.close()

messagebox.showinfo("Operation Successfull!!","Amount Debited Successfully!!")

master.destroy()

return

def Cr\_Amt(accnt,name):

creditwn=tk.Tk()

creditwn.geometry("600x300")

creditwn.title("Credit Amount")

creditwn.configure(bg="SteelBlue1")

fr1=tk.Frame(creditwn,bg="blue")

l\_title=tk.Message(creditwn,text="BANK MANAGEMENT SYSTEM",relief="raised",width=2000,padx=600,pady=0,fg="white",bg="blue4",justify="center",anchor="center")

l\_title.config(font=("Arial","50","bold"))

l\_title.pack(side="top")

l1=tk.Label(creditwn,relief="raised",font=("Times",16),text="Enter Amount to be credited: ")

e1=tk.Entry(creditwn,relief="raised")

l1.pack(side="top")

e1.pack(side="top")

b=tk.Button(creditwn,text="Credit",font=("Times",16),relief="raised",command=lambda:crdt\_write(creditwn,e1.get(),accnt,name))

b.pack(side="top")

creditwn.bind("<Return>",lambda x:crdt\_write(creditwn,e1.get(),accnt,name))

def De\_Amt(accnt,name):

debitwn=tk.Tk()

debitwn.geometry("600x300")

debitwn.title("Debit Amount")

debitwn.configure(bg="SteelBlue1")

fr1=tk.Frame(debitwn,bg="blue")

l\_title=tk.Message(debitwn,text="BANK MANAGEMENT SYSTEM",relief="raised",width=2000,padx=600,pady=0,fg="white",bg="blue4",justify="center",anchor="center")

l\_title.config(font=("Arial","50","bold"))

l\_title.pack(side="top")

l1=tk.Label(debitwn,relief="raised",font=("Times",16),text="Enter Amount to be debited: ")

e1=tk.Entry(debitwn,relief="raised")

l1.pack(side="top")

e1.pack(side="top")

b=tk.Button(debitwn,text="Debit",font=("Times",16),relief="raised",command=lambda:debit\_write(debitwn,e1.get(),accnt,name))

b.pack(side="top")

debitwn.bind("<Return>",lambda x:debit\_write(debitwn,e1.get(),accnt,name))

def disp\_bal(accnt):

fdet=open(accnt+".txt",'r')

fdet.readline()

bal=fdet.readline()

fdet.close()

messagebox.showinfo("Balance",bal)

def disp\_tr\_hist(accnt):

disp\_wn=tk.Tk()

disp\_wn.geometry("900x600")

disp\_wn.title("Transaction History")

disp\_wn.configure(bg="SteelBlue1")

fr1=tk.Frame(disp\_wn,bg="blue")

l\_title=tk.Message(disp\_wn,text="BANK MANAGEMENT SYSTEM",relief="raised",width=2000,padx=600,pady=0,fg="white",bg="blue4",justify="center",anchor="center")

l\_title.config(font=("Arial","50","bold"))

l\_title.pack(side="top")

fr1=tk.Frame(disp\_wn)

fr1.pack(side="top")

l1=tk.Message(disp\_wn,text="Your Transaction History:",font=("Times",16),padx=100,pady=20,width=1000,bg="blue4",fg="SteelBlue1",relief="raised")

l1.pack(side="top")

fr2=tk.Frame(disp\_wn)

fr2.pack(side="top")

frec=open(accnt+"-rec.txt",'r')

for line in frec:

l=tk.Message(disp\_wn,anchor="w",text=line,relief="raised",width=2000)

l.pack(side="top")

b=tk.Button(disp\_wn,text="Quit",relief="raised",command=disp\_wn.destroy)

b.pack(side="top")

frec.close()

def logged\_in\_menu(accnt,name):

rootwn=tk.Tk()

rootwn.geometry("1600x500")

rootwn.title("CopyAssignment Bank | Welcome - "+name)

rootwn.configure(background='SteelBlue1')

fr1=tk.Frame(rootwn)

fr1.pack(side="top")

l\_title=tk.Message(rootwn,text="BANK MANAGEMENT SYSTEM",relief="raised",width=2000,padx=600,pady=0,fg="white",bg="blue4",justify="center",anchor="center")

l\_title.config(font=("Arial","50","bold"))

l\_title.pack(side="top")

label=tk.Label(text="Logged in as: "+name,relief="raised",bg="blue3",font=("Times",16),fg="white",anchor="center",justify="center")

label.pack(side="top")

img2=tk.PhotoImage(file="credit.gif")

myimg2=img2.subsample(2,2)

img3=tk.PhotoImage(file="debit.gif")

myimg3=img3.subsample(2,2)

img4=tk.PhotoImage(file="balance1.gif")

myimg4=img4.subsample(2,2)

img5=tk.PhotoImage(file="transaction.gif")

myimg5=img5.subsample(2,2)

b2=tk.Button(image=myimg2,command=lambda: Cr\_Amt(accnt,name))

b2.image=myimg2

b3=tk.Button(image=myimg3,command=lambda: De\_Amt(accnt,name))

b3.image=myimg3

b4=tk.Button(image=myimg4,command=lambda: disp\_bal(accnt))

b4.image=myimg4

b5=tk.Button(image=myimg5,command=lambda: disp\_tr\_hist(accnt))

b5.image=myimg5

img6=tk.PhotoImage(file="logout.gif")

myimg6=img6.subsample(2,2)

b6=tk.Button(image=myimg6,relief="raised",command=lambda: logout(rootwn))

b6.image=myimg6

b2.place(x=100,y=150)

b3.place(x=100,y=220)

b4.place(x=900,y=150)

b5.place(x=900,y=220)

b6.place(x=500,y=400)

def logout(master):

messagebox.showinfo("Logged Out","You Have Been Successfully Logged Out!!")

master.destroy()

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def check\_log\_in(master,name,acc\_num,pin):

if(check\_acc\_nmb(acc\_num)==0):

master.destroy()

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return

if( (is\_number(name)) or (is\_number(pin)==0) ):

messagebox.showinfo("Error","Invalid Credentials\nPlease try again.")

master.destroy()

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else:

master.destroy()

logged\_in\_menu(acc\_num,name)

def log\_in(master):

master.destroy()

loginwn=tk.Tk()

loginwn.geometry("600x300")

loginwn.title("Log in")

loginwn.configure(bg="SteelBlue1")

fr1=tk.Frame(loginwn,bg="blue")

l\_title=tk.Message(loginwn,text="BANK MANAGEMENT SYSTEM",relief="raised",width=2000,padx=600,pady=0,fg="white",bg="blue4",justify="center",anchor="center")

l\_title.config(font=("Arial","50","bold"))

l\_title.pack(side="top")

l1=tk.Label(loginwn,text="Enter Name:",font=("Times",16),relief="raised")

l1.pack(side="top")

e1=tk.Entry(loginwn)

e1.pack(side="top")

l2=tk.Label(loginwn,text="Enter account number:",font=("Times",16),relief="raised")

l2.pack(side="top")

e2=tk.Entry(loginwn)

e2.pack(side="top")

l3=tk.Label(loginwn,text="Enter your PIN:",font=("Times",16),relief="raised")

l3.pack(side="top")

e3=tk.Entry(loginwn,show="\*")

e3.pack(side="top")

b=tk.Button(loginwn,text="Submit",command=lambda: check\_log\_in(loginwn,e1.get().strip(),e2.get().strip(),e3.get().strip()))

b.pack(side="top")

b1=tk.Button(text="HOME",font=("Times",16),relief="raised",bg="blue4",fg="white",command=lambda: home\_return(loginwn))

b1.pack(side="top")

loginwn.bind("<Return>",lambda x:check\_log\_in(loginwn,e1.get().strip(),e2.get().strip(),e3.get().strip()))

def Create():

crwn=tk.Tk()

crwn.geometry("600x300")

crwn.title("Create Account")

crwn.configure(bg="SteelBlue1")

fr1=tk.Frame(crwn,bg="blue")

l\_title=tk.Message(crwn,text="BANK MANAGEMENT SYSTEM",relief="raised",width=2000,padx=600,pady=0,fg="white",bg="blue4",justify="center",anchor="center")

l\_title.config(font=("Arial","50","bold"))

l\_title.pack(side="top")

l1=tk.Label(crwn,text="Enter Name:",font=("Times",16),relief="raised")

l1.pack(side="top")

e1=tk.Entry(crwn)

e1.pack(side="top")

l2=tk.Label(crwn,text="Enter opening credit:",font=("Times",16),relief="raised")

l2.pack(side="top")

e2=tk.Entry(crwn)

e2.pack(side="top")

l3=tk.Label(crwn,text="Enter desired PIN:",font=("Times",16),relief="raised")

l3.pack(side="top")

e3=tk.Entry(crwn,show="\*")

e3.pack(side="top")

b=tk.Button(crwn,text="Submit",font=("Times",16),command=lambda: write(crwn,e1.get().strip(),e2.get().strip(),e3.get().strip()))

b.pack(side="top")

crwn.bind("<Return>",font=("Times",16),command=lambda x:write(crwn,e1.get().strip(),e2.get().strip(),e3.get().strip()))

return

def Main\_Menu():

rootwn=tk.Tk()

rootwn.geometry("1600x500")

rootwn.title("Bank Management System - CopyAssignment")

rootwn.configure(background='SteelBlue1')

fr1=tk.Frame(rootwn)

fr1.pack(side="top")

l\_title=tk.Message(text="BANK MANAGEMENT SYSTEM ",relief="raised",width=2000,padx=600,pady=0,fg="white",bg="blue4",justify="center",anchor="center")

l\_title.config(font=("Verdana","40","bold"))

l\_title.pack(side="top")

imgc1=tk.PhotoImage(file="new.gif")

imglo=tk.PhotoImage(file="login.gif")

imgc=imgc1.subsample(2,2)

imglog=imglo.subsample(2,2)

b1=tk.Button(image=imgc,command=Create)

b1.image=imgc

b2=tk.Button(image=imglog,command=lambda: log\_in(rootwn))

b2.image=imglog

img6=tk.PhotoImage(file="quit.gif")

myimg6=img6.subsample(2,2)

b6=tk.Button(image=myimg6,command=rootwn.destroy)

b6.image=myimg6

b1.place(x=800,y=300)

b2.place(x=800,y=200)

b6.place(x=920,y=400)

rootwn.mainloop()

Main\_Menu()