try:  
 from tkinter import \*  
 from tkinter import GROOVE # YEH USE KIYA H FRAME BORDER STYLE KE LIYE  
 from tkinter import messagebox #error ya info mesage dikhane ke liye  
  
except ModuleNotFoundError as e:  
 print("Tkinter is not available in this python environment.")  
 raise  
  
from PIL import Image,ImageTk ,ImageFilter # type: ignore #image show kr #image ko load,resize , blur aur gui mein sue krne ke liye  
from PIL.ImageTk import PhotoImage #tkinter ke liye image ko support krta hai  
import random # random bill number generate ke liye(jaise bill n0)  
import time #time se related functions ke iye(jaise current time lena)  
import mysql.connector #mysql database ke saath connect krne ke liye  
  
""" try ka use error handling ke liye use kiya jata h yaha pe hum tkinter aur messagebox ko import krte hain , agar tkinter   
install nhi h ya module missing ho jaaye toh except block chalega and user ko message receive hoga: tkinter is not avalabe ands raise   
likhne se program ruk jaata h aur full error dikhata hai!!"""  
  
#======================MYSQL CONNECTION FUNCTION===================================  
def connect\_db():  
 return mysql.connector.connect(  
 host="localhost", #mysql server ka address  
 user="root", #apna sql username  
 passwd="1234", #sql password  
 database="grocerydb") #database name(jis db mein kaam rkna h )  
  
  
#====================main page function start=============  
def main\_page():  
  
 main\_pg=Tk() #main grocery window  
 main\_pg.title("HNM Grocery- Main page")#title select  
 main\_pg.geometry("1200x700")#size fix kiya  
 main\_pg.configure(bg="blue") #background colour  
  
  
 #==============titles and headings ==============  
 Label ( main\_pg , text = "Welcome to HNM Grocery" , font = "verdana 25 bold" , bg = "pink" , fg = "white" ).pack (fill=X)  
 #heading label banaya, and full width  
 Label ( main\_pg , text = "Select Grocery Items" , font = "verdana 16 bold" , bg = "white" , fg = "green" ).pack ()  
 #sub heading  
  
 # -================= customer details===============  
 cust\_frame = Frame(main\_pg, bd=5, relief=GROOVE, bg="blue") #frame banaya jismein customer ke inputs honge  
 cust\_frame.place(x=0 , y=50, relwidth=1, height=90) #uss frame ko screen pe place kiya ek specific location pe  
  
 Label(cust\_frame , text="Customer Details",bg="pink" , fg="white", font="verdana 12 bold" ).grid(row=0,column=0, columnspan=6,padx=10, pady=5)  
 #frame ka heading label  
 Label ( cust\_frame , text = "Customer NAME" , bg = "blue" , fg = "white" , font = "verdana 12 bold" ).grid (  
 row = 1 , column = 0 , padx = 10 ) #customer name label  
 cname=Entry(cust\_frame,font="verdana 12") #entry box banaya jaha customer apna naam dalega  
 cname.grid(row=1,column=1,padx=10) #entry box ko grid me place kiya  
  
 #PHONE NUMBER KE IYE BLOCK BANAYA H  
 Label(cust\_frame,text="phone no.",bg='blue',fg="white",font="verdana 12 bold").grid(row=1,column=2,padx=10)  
 cphone=Entry (cust\_frame , font = "verdana 12" ) #entry box for phone  
 cphone.grid(row=1,column=3,padx=10) #then uska grid  
  
 #BILL NUMBER  
 Label(cust\_frame,text='Bill No',bg='blue',fg='white',font="verdana 12 bold").grid(row=1,column=4,padx=10)  
 cbill=Entry (cust\_frame , font = "verdana 12" ) #same box banaya  
 cbill.grid(row=1,column=5,padx=10) #grid di  
 cbill.insert(0,str(int(time.time()))) #current time ko string me convert krke bill no set kiya  
  
 #================variables=================  
 items={  
 "Bread":[IntVar(),10],"candy":[IntVar(),5],"burger":[IntVar(),20], #intvar( for quantity ,10 is price  
 "biscuits": [IntVar () , 15] , "sandwich": [IntVar () , 12] , "rice": [IntVar () , 30] ,  
 "food oil": [IntVar () , 25] , "salt": [IntVar () , 5] , "wheat": [IntVar () , 28] ,  
 "sugar": [IntVar () , 14] , "juice": [IntVar () , 22] , "choco": [IntVar () , 18] ,  
 "milk": [IntVar () , 15] , "namkeen": [IntVar () , 12] , "masala": [IntVar () , 10] ,  
 }  
  
 #=============create sections==================  
 def create\_item\_section(title,keys,x,y):  
 frame=LabelFrame(main\_pg, text=title, font="verdana 15 bold", fg="yellow",bg="blue") #har item category ka section banate hai  
 frame.place(x=x,y=y,width=250, height=380) #uss frame ko fix loaction pr rakhte h  
 for i , key in enumerate(keys): #har items ke liye ek label aur entry banate3 hai  
 (Label(frame,text=key,font="verdana 12 bold",bg="blue",fg="white")  
 .grid(row=i,column=0,padx=10,pady=5,sticky='w'))# item name  
 Entry ( frame , textvariable =items[key][0],width=10,font="verdana 12 ").grid(row=i,column=1,padx=5) #quantity enrty box  
  
 create\_item\_section("food",list(items.keys())[0:5],0,140) #first 5 items food category mein  
 create\_item\_section( "grocery" , list ( items.keys() )[5:10] , 260 , 140 ) # next 5 grocery me  
 create\_item\_section( "others" , list ( items.keys() )[10:] , 520, 140 ) #bache hue items others mein  
   
 # ===============nnow creating bill area===========  
   
 bill\_area=LabelFrame(main\_pg,text="Bill list",font="verdana 15 bold", fg="yellow", bg="red") #bill dikhane ke liye label frame  
 bill\_area.place(x=780,y=140,width=400,height=300) #kaha place krna h  
 textarea=Text(bill\_area,font="verdana 12",bg="white") #text area jahan bill dikhega  
 textarea.pack(fill=BOTH,expand=1)  
   
  
 #======================variables for totals and tax=============  
 total\_food = StringVar ()  
 tax\_food = StringVar ()  
  
 total\_grocery = StringVar ()  
 tax\_groc = StringVar ()  
  
 total\_other = StringVar ()  
 tax\_other = StringVar ()  
  
 # ==============this is section total frame================  
 total\_frame = Frame ( main\_pg , bd = 5 , relief = GROOVE , bg = "YELLOW" ) #frame jisme totals aur buttons honge  
 total\_frame.place ( x = 0 , y = 460 , relwidth = 1 , height = 180 )  
  
 # =======================labels and entries for total section================  
 Label ( total\_frame , text = "total food" , font = "verdana 12 bold" , bg = "blue" , fg = "white" ).grid ( row = 0 ,  
 column = 0 , padx = 10 )  
 Entry ( total\_frame , textvariable = total\_food , width = 10 ).grid ( row = 0 , column = 1 , padx = 5 )  
 Label ( total\_frame , text = "total tax" , font = "verdana 12 bold" , bg = "blue" , fg = "white" ).grid (  
 row = 1 , column = 0 , padx = 10 )  
 Entry ( total\_frame , textvariable = tax\_food , width = 10 ).grid (  
 row = 1 , column = 1 , padx = 5 )  
  
 Label ( total\_frame , text = "total grocery" , font = "verdana 12 bold" , bg = "blue" , fg = "white" ).grid (  
 row = 0 , column = 2 , padx = 10 )  
 Entry ( total\_frame , textvariable = total\_grocery , width = 10 ).grid (  
 row = 0 , column = 3 , padx = 5 )  
 Label ( total\_frame , text = "grocery tax" , font = "verdana 12 bold" , bg = "blue" , fg = "white" ).grid (  
 row = 1 , column = 2 , padx = 10 )  
 Entry ( total\_frame , textvariable = tax\_groc , width = 10 ).grid (  
 row = 1 , column = 3 , padx = 5 )  
  
 Label ( total\_frame , text = " others total " , font = "verdana 12 bold" , bg = "blue" , fg = "white" ).grid (  
 row = 0 , column = 4 , padx = 10 )  
 Entry ( total\_frame , textvariable = total\_other , width = 10 ).grid (  
 row = 0 , column = 5 , padx = 5 )  
 Label ( total\_frame , text = " others tax " , font = "verdana 12 bold" , bg = "blue" , fg = "white" ).grid (  
 row = 1 , column = 4 , padx = 10 )  
 Entry ( total\_frame , textvariable = tax\_other , width = 10 ).grid (  
 row = 1 , column = 5 , padx = 5 )  
  
  
 # =======================calculate totals function==================  
 def calculate\_total():  
 f\_total=g\_total=o\_total=0  
 for i,(key,(var,price))in enumerate(items.items()):  
 qty=var.get()  
 if i<5:  
 f\_total+=qty\*price  
 elif i<10:  
 g\_total+=qty\*price  
 else:  
 o\_total+=qty\*price  
   
 total\_food.set(f\_total) #total value  
 tax\_food.set ( round ( f\_total \* 0.05 ) )  
 total\_grocery.set ( g\_total )  
 tax\_groc.set ( round ( g\_total \* 0.05 ) )  
 total\_other.set ( o\_total )  
 tax\_other.set ( round ( o\_total \* 0.05 ) )  
 tax\_groc.set ( round(g\_total \* 0.05 ))  
 #----------------------------genertae bill---------------------  
 def generate\_bill():  
 calculate\_total() #sab totals aur taxes calculate karte hai pehle  
 textarea.delete("1.0",END) #bill area me pehle ka text clear kar diya  
 textarea.insert(END,f"\t HNM Grocery Bill\n") #heading insert ki  
 textarea.insert ( END ,f"\nBill no:{cbill.get()} Name:{cname.get()} Phone: {cphone.get()}\n")#bill no,name,phone no show kiya  
 textarea.insert ( END , f"========================================\n" ) #divider line fro seaparation and clear view  
 textarea.insert ( END , f"Product\tQty\tPrice\n" ) #column heading  
 textarea.insert ( END , f"=======================================\n" ) #dividier line  
 total\_price=0 #total price initially 0  
 item\_list=" " #database mein items store krne ke liye list banaya  
 for item,(var,price) in items.items(): #har item ke liye llooop  
 qty=var.get() #quantity get ki user se  
 if qty>0: #agar quantity 0 se zayada hai  
 subtotal=qty\*price #price calculate  
 total\_price+=subtotal #total mein add kiya  
 item\_list+=f"{item}x{qty}," #item and quantity string mein joda  
 textarea.insert(END,f"{item}\t{qty}\t{subtotal}\n") # bill area me item details dikhayi  
 tax\_total=int(tax\_food.get())+int(tax\_groc.get())+int(tax\_other.get()) #total tax xalculate kiya  
 final\_total=total\_price+tax\_total #grand total calculate  
 textarea.insert(END,f"===============================================\n") #divider line  
 textarea.insert(END,f"Total amount payable:rupees {final\_total}\n") #final amount dikhaya  
  
 #=======================database function=====================  
  
 try:  
 conn=connect\_db() #database se connect kiya  
 cursor=conn.cursor() #cursor create kiya  
 insert\_query=""" insert into bills (bill\_no,customer\_name,phone,items,total)   
 values (%s,%s,%s,%s,%s) """ #sql query likhi  
 values=(cbill.get(),cname.get(),cphone.get(),item\_list,final\_total) #values tuple banaya  
 cursor.execute(insert\_query,values) # query ko excute kiya  
 conn.commit() #connection save kiya  
 print("Bill inserted into databse succeessfully.")  
 conn.close() #connetion ko band kiya  
 except Exception as e:  
 messagebox.showerror("Database Error",f"failed to insert bill into database:\n{e}")  
 #error dikhaya agar insert fail hua  
 print("Error inserting bill into database.",e)  
  
 #===============================buttons=============================  
 """ yaha buttons create kiye h sab ke liye alag aur usko grid provide ki h """  
 Button ( total\_frame , text = "TOTAL" , command = calculate\_total , width = 10 , font = "verdana 12 bold" ).grid (  
 row = 2 , column = 0 , padx = 20 , pady = 10 )  
 Button ( total\_frame , text = "GENERATE BILL" , command = generate\_bill , width = 15 ,  
 font = "verdana 12 bold" ).grid ( row = 2 , column = 1 , padx = 20 )  
 Button ( total\_frame , text = "CLEAR" , command = lambda: main\_pg.destroy () or main\_page () , width = 10 ,  
 font = "verdana 12 bold" ).grid ( row = 2 , column = 2 , padx = 20 )  
 Button ( total\_frame , text = "EXIT" , command = main\_pg.destroy , width = 10 , font = "verdana 12 bold" ).grid (  
 row = 2 , column = 3 , padx = 20 )  
  
 main\_pg.mainloop() #main page run krne ke liye loop chalu kiya  
  
#==========================================LOGIN PAGE===============================  
#==============main login window===========  
# yaha se login page suru h  
HNM= Tk()# screen name  
HNM.title("HNM grocery login")# login page ka title  
HNM.geometry("1000x600") # login page ka size  
HNM.resizable(False,False)#isse size fix ho jaayega  
HNM.configure(bg="white") # background ka colour change krne ke liye  
  
img= Image.open ("HNM GROCERY IMAGE.jpg").resize((1000,600))  
blur\_img=img.filter(ImageFilter.GaussianBlur(radius=4))  
photo=ImageTk.PhotoImage(blur\_img)  
  
bg\_label=Label(HNM,image=photo)  
bg\_label.place(x=0,y=0,relwidth=1,relheight=1)  
  
Label(HNM,text="Log in & Load your cart!",font="Verdana 20 bold",bg="white",fg="maroon").pack(pady=30)  
"""label add krne ke liye use krte he and without pack ke label show nhi   
hoga isme font type ans size also font colour dont background sabka use he"""  
  
#================login function+======================  
def login():   
 username=Entry1.get() # this variable is made to get passward and store in this variable  
 password=Entry2.get() # store password in this variable  
  
 if username=="" and password=="": # type: ignore  
 messagebox.showerror("error","Enter password/username")  
 elif username== "":  
 messagebox.showerror("Error","enter the username")   
 elif password=="" :  
 messagebox.showerror("Error","Enter the password")   
 elif username=="@HNM\_123" and password=="HNM123" :  
 messagebox.showinfo("success","login successful")  
 HNM.destroy() #login page to close krne ke liye   
 main\_page()   
 else:  
 messagebox.showerror("Error","Incorrect username or password")  
  
#=====LOGIN FRAME==================================================================  
  
login\_frame=Frame(HNM,bg="white",bd=5)  
login\_frame.place(relx=0.5,rely=0.55,anchor=CENTER)  
  
# ======================FRAME (INSIDE)==============================================  
  
Label(login\_frame,text="Username",font="verdana 16 bold",bg="white",fg="maroon").grid(row=0,column=0,padx=10,pady=10)  
'''2nd label username ke liye banaya he place ka use username ki place bataega isme x means x axis and y means y axis'''  
Entry1=Entry(login\_frame,font="verdana 16",bg="white",fg="black",width=20)  
Entry1.grid(row=0,column=1,padx=10,pady=10)#entry is used to enter the username of user  
  
Label(login\_frame,text="Password",font="verdana 16 bold",bg="white",fg="maroon").grid(row=1,column=0,padx=10,pady=10)  
#this Label is created for password  
Entry2=Entry(login\_frame,show="\*",font="verdana 16",bg="white",fg="black",width=20)  
Entry2.grid(row=1,column=1,padx=10,pady=10)# this entry is used for password emtry by user  
  
Button(login\_frame,text="LOGIN",font="verdana 16 bold",bg="green",fg="white",command=login).grid(row=2,columnspan=2,pady=5)  
''' made login button and use commond function to show message'''   
HNM.mainloop() #mainloop function window show krne ke liye krte he   
  
""" .grid is used for yable like layout system and it is also used for ows and column and easy for forms/inputs fields  
and .place is used for exact coordinate based layout and use x,y postitions and best for fixed positioned widgets"""  
""" padx ka matlb h todha sa space deta h input box mein ke left ya right mein """  
""" label ka use text dikhane ke liye hota hain gui me and frame joh h ek chota container type hota h joh ki ek section   
define krta h gui mein"""