**OSTL MINI PROJECT**

**Title:** FAMILY EXPENDITURE PLANNER

**Problem statement:** In our project, Family Expenditure Planner, python language is used. The customer has to enter all the relevant details related to personal information, income, family members, investment in property, investment in gold, expenses in food ,travelling,education,electricity,cosmetics,luxury and other expenses. All the mentioned details are entered in different windows containing various subfields.When the customer enters the details and pays the fees to the planner , the planner will see the details into the planner window which can only be accessed through specific username and password.

The database will be shown to the planner if proper username and password is entered.If the customer has paid the fees the planner will analyse the entries and give his expert advice to the customer to reduce the expenses or certain tips to manage the expenditure.The customer can see this advice in the planned message window which can be accessed individually by entering correct emailid.

**Functionality :**

* **Plannerclick() :** This method is for the Planner window ie. when you click on the Planner you have to enter correct username and password to see the entries in the database by clicking on OPEN DATABASE and further write the planned message for a particular email id.

* **messageclick()** : This method is to display the message to the customer when he enters his emailid in the planned message window.

* **helpclick()** :This method is for the customer to enter all the details into the need help window.

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* **Customerclick()**: This method is for the Customer window. This method consists of the the commands messageclick and the helpclick which are the  methods which customer is going to access.

**Technology used :**

We have used **Python** language for implementation of the entire project and one external application called **DB Browser for SQLite3** to view the database. This application directly opens up on a click and shows all entries in the table which makes the planner really comfortable and easy to anaylse the expenses of the customer in simplified manner so that he can give correct advice to the customer.

**Code:**

from tkinter import \*

import sqlite3

from tkinter import messagebox

import tkinter as tk

import os

root=tk.Tk()

x=tk.IntVar()

conn=sqlite3.connect('fam1.db')

'''conn.execute("CREATE TABLE FAMILY (NAME TEXT NOT NULL,SURNAME TEXT NOT NULL,MEMBERS INT NOT NULL,ANNUAL INT NOT NULL,LASTMONTH INT NOT NULL,PROPER INT NOT NULL,\

               GOLD INT NOT NULL,FOOD INT NOT NULL,ELECTRICITY INT NOT NULL,EDUCATION INT NOT NULL,COSMETICS INT NOT NULL,LUXURY INT NOT NULL,TRAVEL INT NOT NULL, \

               OTHER INT NOT NULL,NUMBER INT NOT NULL,EMAIL TEXT NOT NULL,MESSAGE TEXT);")'''

name,surname,members,annual,lastMonth,proper,gold,food,electricity,education,cosmetics,luxury,travel,other,uid,upass,email,number,plmessage=0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0,0

def databasefun(total):

   global name,surname,members,annual,lastMonth,proper,gold,food,electricity,education,cosmetics,luxury,travel,other,number,email

   total.quit()

   total.destroy()

   conn.execute("INSERT INTO FAMILY (NAME,SURNAME,MEMBERS,ANNUAL,LASTMONTH,PROPER,GOLD,FOOD,ELECTRICITY,EDUCATION,COSMETICS,LUXURY,TRAVEL,OTHER,NUMBER,EMAIL) \

             VALUES (?,?,?,?,?,?,?,?,?,?,?,?,?,?,?,?)",(name,surname,members,annual,lastMonth,proper,gold,food,electricity,education,cosmetics,luxury,travel,other,number,email));

   conn.commit()

   #Fees:

   fee=tk.Tk()

   fee.title("FAMILY EXPENDITURE PLANNING-CUSTOMER-PLANNER FEES")

   width,height=fee.winfo\_screenwidth(),fee.winfo\_screenheight()

   fee.geometry('%dx%d+0+0'%(width,height))

   fee["bg"]="#b3e6ff"

   Label(fee,text='''

Thank you for working with us!

You can pay us through following services:

Transfer your money to Bank Account Number: 783920001941

Pay by using Patym on Mobile Number: 9702379158

Pay on Tez by Google using UPI ID: bgahuja19@okhdfcbank

As soon as we will receive our fees, our experts will start working to maximize

your savings and minimize expenditure

You can view the expret suggestion in Customer-Message

Use ID as your email''',font="Roman 15 bold italic",height=15,width=100,bg="yellow").place(x=240,y=100)

   fee.mainloop()

##root=tk.Tk()

##x=tk.IntVar()

def PlannerClick():

   global uid,plmessage

   global upass

   root.quit()

   #root.destroy()

   plan=tk.Tk()

   plan.title("FAMILY EXPENDITURE PLANNING-PLANNER")

   width,height=plan.winfo\_screenwidth(),plan.winfo\_screenheight()

   plan.geometry('%dx%d+0+0'%(width,height))

   plan["bg"]="#b3e6ff"

   lab1=tk.Label(plan,text="",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=2,column=0)

   lab2=tk.Label(plan,text="",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=3,column=0)

   label1=tk.Label(plan,text="User Name",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=4,column=1)

   label1=tk.Label(plan,text="Password",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=5,column=1)

   t1=Entry(plan)

   t1.grid(row=4,column=2,pady=5)

   t2=Entry(plan,show="●")

   t2.grid(row=5,column=2,pady=5)

   Button(plan,text="<< OPEN DATABASE >>",width=20,height=3,command=plan.quit,bg='#d5d9e0',font='times 10 bold').place(x=600,y=500)

   plan.mainloop()

   uid=t1.get()

   upass=t2.get()

   #print(uid,upass)

   plan.destroy()

   if(uid == "Anubhav" and upass == "mayakaal"):

       plmsg=tk.Tk()

       plmsg.title("FAMILY EXPENDITURE PLANNING-PLANNER")

       width,height=plmsg.winfo\_screenwidth(),plmsg.winfo\_screenheight()

       plmsg.geometry('%dx%d+0+0'%(width,height))

       plmsg["bg"]="#b3e6ff"

       lab1=tk.Label(plmsg,text="Email ID",height=2,width=30,bg="#b3e6ff",font="times 15 bold").place(x=0,y=85)

       lab1=tk.Label(plmsg,text="Message after analysis",height=2,width=30,bg="#b3e6ff",font="times 15 bold").place(x=8,y=150)

       t1=Entry(plmsg,width=100)

       t1.place(x=300,y=100)

       t2=Text(plmsg,width=150,height=10)

       t2.place(x=80,y=200)

       os.system("DBBrowser\DBBrowser.exe")

       os.system("taskkill /f /im C:\WINDOWS\system32\cmd.exe")

       Button(plmsg,text="<< SUBMIT MESSAGE >>",width=20,height=3,command=plmsg.quit,bg='#d5d9e0',font='times 10 bold').place(x=600,y=500)

       plmsg.mainloop()

       plemail=t1.get()

       plmessage=t2.get("1.0","end-1c")

       conn.execute("UPDATE FAMILY SET MESSAGE=(?) WHERE EMAIL=(?)",(plmessage,plemail));

       conn.commit()

       print(plmessage,plemail)

   else:

       if(uid!="Anubhav"):

           messagebox.showinfo("Wrong Details", "Wrong User ID")

       elif(upass!="mayakaal"):

           messagebox.showinfo("Wrong Details", "Wrong User Password")

def messageClick():

   root.quit()

   #root.destroy()

   emessage=tk.Tk()

   emessage.title("FAMILY EXPENDITURE PLANNING-CUSTOMER-MESSAGE")

   width,height=emessage.winfo\_screenwidth(),emessage.winfo\_screenheight()

   emessage.geometry('%dx%d+0+0'%(width,height))

   emessage["bg"]="#b3e6ff"

   label=tk.Label(emessage,text="Email ID",height=2,width=30,bg="#b3e6ff",font="times 15 bold").place(x=0,y=85)

   t=Entry(emessage,width=100)

   t.place(x=300,y=100)

   Button(emessage,text="<< GET MESSAGE >>",width=20,height=3,command=emessage.quit,bg='#d5d9e0',font='times 10 bold').place(x=500,y=500)

   emessage.mainloop()

   cemail=t.get()

   emessage.destroy()

   message=tk.Tk()

   message.title("FAMILY EXPENDITURE PLANNING-CUSTOMER-MESSAGE")

   width,height=message.winfo\_screenwidth(),message.winfo\_screenheight()

   message.geometry('%dx%d+0+0'%(width,height))

   message["bg"]="#b3e6ff"

   x=conn.execute("SELECT MESSAGE FROM FAMILY WHERE EMAIL = '%s'" % cemail);

   Label(message,text=x.fetchone(),font="Roman 15 bold italic",height=12,width=100,bg="yellow").place(x=240,y=100)

   Label(message,text='''NOTE:

If above space is blank, then Email ID is either incorrect or you have not asked for help yet.

if None appears above, then you have not yet paid the fees.''',font="Roman 15 bold italic",height=6,width=100,bg="yellow").place(x=240,y=500)

def helpClick():

   global name,surname,members,annual,lastMonth,proper,gold,food,electricity,education,cosmetics,luxury,travel,other,email,number,x

   #Personal Information:

   root.quit()

   #root.destroy()

   info=tk.Tk()

   info.title("FAMILY EXPENDITURE PLANNING-CUSTOMER-INFORMATION")

   width,height=info.winfo\_screenwidth(),info.winfo\_screenheight()

   info.geometry('%dx%d+0+0'%(width,height))

   info["bg"]="#b3e6ff"

   lab=tk.Label(info,text="PERSONAL DETAILS",height=5,width=30,bg="#b3e6ff",font="times 15 bold italic underline").grid(row=0,column=0,columnspan=3)

   label1=tk.Label(info,text="First Name",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=2,column=0)

   label2=tk.Label(info,text="Last Name",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=3,column=0)

   label3=tk.Label(info,text="Number Of Family Members",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=4,column=0)

   label4=tk.Label(info,text="Contact Number",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=5,column=0)

   label5=tk.Label(info,text="Email ID",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=6,column=0)

   t1=Entry(info)

   t1.grid(row=2,column=1,pady=5)

   t2=Entry(info)

   t2.grid(row=3,column=1,pady=5)

   t3=Entry(info)

   t3.grid(row=4,column=1,pady=5)

   t4=Entry(info)

   t4.grid(row=5,column=1,pady=5)

   t5=Entry(info)

   t5.grid(row=6,column=1,pady=5)

   Button(info,text="<< NEXT >>",width=10,height=3,command=info.quit,bg='#d5d9e0',font='times 10 bold').place(x=500,y=500)

   info.mainloop()

   name=t1.get()

   surname=t2.get()

   members=t3.get()

   number=t4.get()

   email=t5.get()

   if(name.isalpha() and surname.isalpha() and members.isdigit() and number.isdigit() and len(number)==10 and '@' in email and '.' in email):

       pass

   else:

       messagebox.showinfo("Wrong Details", "Please enter correct information and close this window")

   info.destroy()

   #Income Details:

   income=tk.Tk()

   income.title("FAMILY EXPENDITURE PLANNING-CUSTOMER-INFORMATION")

   width,height=income.winfo\_screenwidth(),income.winfo\_screenheight()

   income.geometry('%dx%d+0+0'%(width,height))

   income["bg"]="#b3e6ff"

   lab=tk.Label(income,text="FAMILY INCOME DETAILS",height=5,width=30,bg="#b3e6ff",font="times 15 bold italic underline").grid(row=0,column=0,columnspan=4)

   rlabel=tk.Label(income,text="Work",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=2,column=0)

   Radiobutton(income,text="Business",variable=x,value="1").place(x=370,y=135)

   Radiobutton(income,text="Service",variable=x,value="2").place(x=570,y=135)

   label1=tk.Label(income,text="Average Annual Income",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=3,column=0)

   label2=tk.Label(income,text="Last Month Income",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=4,column=0)

   label3=tk.Label(income,text="Property in Rupees",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=5,column=0)

   label3=tk.Label(income,text="Gold in Rupees",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=6,column=0)

   t1=Entry(income)

   t1.grid(row=3,column=1,pady=5)

   t2=Entry(income)

   t2.grid(row=4,column=1,pady=5)

   t3=Entry(income)

   t3.grid(row=5,column=1,pady=5)

   t4=Entry(income)

   t4.grid(row=6,column=1,pady=5)

   Button(income,text="<< NEXT >>",width=10,height=3,command=income.quit,bg='#d5d9e0',font='times 10 bold').place(x=500,y=500)

   income.mainloop()

   annual=t1.get()

   lastMonth=t2.get()

   proper=t3.get() #property

   gold=t4.get()

   if(annual.isdigit() and lastMonth.isdigit() and proper.isdigit() and gold.isdigit()):

       pass

   else:

       messagebox.showinfo("Wrong Details", "Please enter correct information and close this window")

   income.destroy()

   #Expenditure Details:

   expense=tk.Tk()

   expense.title("FAMILY EXPENDITURE PLANNING-CUSTOMER-INFORMATION")

   width,height=expense.winfo\_screenwidth(),expense.winfo\_screenheight()

   expense.geometry('%dx%d+0+0'%(width,height))

   expense["bg"]="#b3e6ff"

   lab=tk.Label(expense,text="EXPENDITURE DETAILS",height=5,width=30,bg="#b3e6ff",font="times 15 bold italic underline").grid(row=0,column=0,columnspan=3)

   label1=tk.Label(expense,text="Food Expenses",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=2,column=0)

   label2=tk.Label(expense,text="Electricity Bills",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=3,column=0)

   label3=tk.Label(expense,text="Education Fees",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=4,column=0)

   label4=tk.Label(expense,text="Cosmetics",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=5,column=0)

   label5=tk.Label(expense,text="Luxury Expenses",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=6,column=0)

   label6=tk.Label(expense,text="Travelling Expenses",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=7,column=0)

   label7=tk.Label(expense,text="Other",height=2,width=30,bg="#b3e6ff",font="times 15 bold").grid(row=8,column=0)

   t1=Entry(expense)

   t1.grid(row=2,column=1,pady=5)

   t2=Entry(expense)

   t2.grid(row=3,column=1,pady=5)

   t3=Entry(expense)

   t3.grid(row=4,column=1,pady=5)

   t4=Entry(expense)

   t4.grid(row=5,column=1,pady=5)

   t5=Entry(expense)

   t5.grid(row=6,column=1,pady=5)

   t6=Entry(expense)

   t6.grid(row=7,column=1,pady=5)

   t7=Entry(expense)

   t7.grid(row=8,column=1,pady=5)

   Button(expense,text="<< NEXT >>",width=10,height=3,command=expense.quit,bg='#d5d9e0',font='times 10 bold').place(x=500,y=500)

   expense.mainloop()

   food=t1.get()

   electricity=t2.get()

   education=t3.get()

   cosmetics=t4.get()

   luxury=t5.get()

   travel=t6.get()

   other=t7.get()

   #if(expense.isdigit() and food.isdigit() and electricity.isdigit() and education.isdigit() and cosmetics.isdigit() and luxury.isdigit() and travel.isdigit() and other.isdigit()):

       #pass

   #else:

       #messagebox.showinfo("Wrong Details", "Please enter correct information and close this window")

   expense.destroy()

   #Total Cost:

   total=tk.Tk()

   total.title("FAMILY EXPENDITURE PLANNING-CUSTOMER-DECISION")

   width,height=total.winfo\_screenwidth(),total.winfo\_screenheight()

   total.geometry('%dx%d+0+0'%(width,height))

   total["bg"]="#b3e6ff"

   if(int(annual)<100000):

       Label(total,text='''We will configure your entire details and send you the correct expenditure planning made by our experts!

The total cost will be Rs.6590

If you want to get advice then click YES, or close the window''',font="Roman 15 bold italic",height=12,width=100,bg="yellow").place(x=240,y=100)

   else:

       Label(total,text='''We will configure your entire details and send you the correct expenditure planning made by our experts!

The total cost will be Rs.9260

If you want to get advice then click YES, or close the window''',font="Roman 15 bold italic",height=12,width=100,bg="yellow").place(x=240,y=100)

   Button(total,text="<< YES >>",width=10,height=3,command=lambda:databasefun(total),bg='#d5d9e0',font='times 10 bold').place(x=640,y=500)

   total.mainloop()

   #total.destroy()

def CustomerClick(file3,file4):

   #Customer Options

   cust=Toplevel()

   cust.title("FAMILY EXPENDITURE PLANNING-CUSTOMER")

   width,height=cust.winfo\_screenwidth(),cust.winfo\_screenheight()

   cust.geometry('%dx%d+0+0'%(width,height))

   cust["bg"]="#b3e6ff"

   Button(cust,image=file3,width=450,height=400,command=messageClick,relief="raise").place(x=200,y=200)

   Button(cust,image=file4,width=500,height=400,command=helpClick,relief="raise",bg="#347268").place(x=700,y=200)

   #Button(cust,image=file3,width=350,height=338,relief="raise").place(x=300,y=200)

   #Button(cust,image=file4,width=400,height=338,relief="raise").place(x=700,y=200)

   label1=Label(cust,text="PLANNED MESSAGE",width=41,height=3,font="times 15 bold italic underline",bg='#b3e6ff').place(x=200,y=120)

   label2=Label(cust,text="ENTER DETAILS",width=45,height=3,font="times 15 bold italic underline",bg='#b3e6ff').place(x=700,y=120)

   cust.mainloop()

  root.title("FAMILY EXPENDITURE PLANNING")

width,height=root.winfo\_screenwidth(),root.winfo\_screenheight()

root.geometry('%dx%d+0+0'%(width,height))

root["bg"]="yellow"

file1=PhotoImage(file='Customer.gif')

file2=PhotoImage(file='Planner.gif')

file3=PhotoImage(file='message.gif')

file4=PhotoImage(file='help.gif')

Button(root,image=file2,width=350,height=338,command=PlannerClick,relief="raise").place(x=300,y=200)

Button(root,image=file1,width=400,height=338,command=lambda : CustomerClick(file3,file4),relief="raise").place(x=700,y=200)

label1=Label(root,text="PLANNER",width=32,height=3,font="times 15 bold italic underline",bg='yellow').place(x=300,y=120)

label2=Label(root,text="CUSTOMER",width=36,height=3,font="times 15 bold italic underline",bg='yellow').place(x=700,y=120)

root.mainloop()

print(name,surname,members,annual,lastMonth,proper,gold,food,electricity,education,cosmetics,luxury,travel,other,uid,upass,x,plmessage)

**Snapshots :**

























