from tkinter import \*

import random

import time

import datetime

payroll = Tk()

payroll.geometry("1350x650+0+0")

payroll.title("Payroll Management System")

#===========================DECLARING TEXT VARIABLES=============================================

EmployeeName =StringVar()

Address =StringVar()

Reference =StringVar()

EmployerName =StringVar()

CityWeighting =StringVar()

BasicSalary =StringVar()

OverTime =StringVar()

GrossPay =StringVar()

NetPay=StringVar()

Pension=StringVar()

StudentLoan=StringVar()

Attendance=StringVar()

Deductions=StringVar()

PostCode=StringVar()

Gender=StringVar()

PayDate=StringVar()

TaxPeriod=StringVar()

NICode=StringVar()

TaxablePay=StringVar()

PensionablePay=StringVar()

Tax=StringVar()

#===============================DESIGNING FRAME FOR TITLE==============================================

Tops=Frame(payroll,width=1350,height=50,bd=8, relief="raise")

Tops.pack(side=TOP)

LF=Frame(payroll,width=700,height=600,bd=16)

LF.pack(side=LEFT)

RF=Frame(payroll,width=700,height=600,bd=16)

RF.pack(side=RIGHT)

#=========================DESIGNING TITLE OF THE PROJECT===================================================

lblInfo = Label(Tops, font= ('arial', 50 ,'bold'), text="Payroll Management System",fg="Blue", bd=1)

lblInfo.grid(row=0,column=0)

#=====================================DESIGNING FRAMES================================

#------------------------------------------LEFT FRAME--------------------------------------------------------

LeftInsideLF=Frame(LF,width=700,height=100,bd=8, relief="raise")

LeftInsideLF.pack(side=TOP)

LeftInsideLFLF=Frame(LF,width=325,height=400, bd=8, relief="raise")

LeftInsideLFLF.pack(side=LEFT)

LeftInsideRFRF=Frame(LF,width=325,height=400,bd=8, relief="raise")

LeftInsideRFRF.pack(side=RIGHT)

#--------------------------------------------RIGHT FRAME--------------------------------------

RightInsideLF=Frame(RF,width=600,height=200,bd=8, relief="raise")

RightInsideLF.pack(side=TOP)

RightInsideLFLF=Frame(RF,width=300,height=400,bd=8, relief="raise")

RightInsideLFLF.pack(side=LEFT)

RightInsideRFRF=Frame(RF,width=300,height=400,bd=8, relief="raise")

RightInsideRFRF.pack(side=RIGHT)

#=================================================LEFT SIDE================================================

#-------------------------------------LEFT SIDE TOP PART-------------------------------------------------------

lblEmployeeName = Label(LeftInsideLF, font= ('arial', 15 ,'bold'), text="Employee Name",fg="Blue", bd=10, anchor='w')

lblEmployeeName.grid(row=0,column=0)

txtEmployeeName = Entry(LeftInsideLF,font=('arial',12,'bold'),bd=10,width=54,bg="yellow",textvariable=EmployeeName)

txtEmployeeName.grid(row=0,column=1)

lblAddress = Label(LeftInsideLF, font= ('arial', 15 ,'bold'), text="Address",fg="Blue", bd=10, anchor='w')

lblAddress.grid(row=1,column=0)

txtAddress = Entry(LeftInsideLF,font=('arial',12,'bold'),bd=10,width=54,bg="yellow"

,textvariable=Address)

txtAddress.grid(row=1,column=1)

lblReference = Label(LeftInsideLF, font= ('arial', 15 ,'bold'), text="Reference ID",fg="Blue", bd=10, anchor='w')

lblReference.grid(row=2,column=0)

txtReference = Entry(LeftInsideLF,font=('arial',12,'bold'),bd=10,width=54,bg="powder blue"

,textvariable=Reference)

txtReference.grid(row=2,column=1)

lblEmployerName = Label(LeftInsideLF, font= ('arial', 15 ,'bold'), text="Employer Name",fg="Blue", bd=10, anchor='w')

lblEmployerName.grid(row=3,column=0)

txtEmployerName = Entry(LeftInsideLF,font=('arial',12,'bold'),bd=10,width=54,bg="yellow"

,textvariable=EmployerName)

txtEmployerName.grid(row=3,column=1)

#------------------------------------LEFT SIDE INNER LEFT PART--------------------------------------------------------

lblCity = Label(LeftInsideLFLF, font= ('arial', 15 ,'bold'), text="City Weighting",fg="Blue", bd=10, anchor='w')

lblCity.grid(row=0,column=0)

txtCity = Entry(LeftInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="yellow"

,textvariable=CityWeighting)

txtCity.grid(row=0,column=1)

lblBasicSalary= Label(LeftInsideLFLF, font= ('arial', 15 ,'bold'), text="Basic Salary",fg="Blue", bd=10, anchor='w')

lblBasicSalary.grid(row=1,column=0)

txtBasicSalary = Entry(LeftInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="yellow"

,textvariable=BasicSalary)

txtBasicSalary.grid(row=1,column=1)

lblOverTime= Label(LeftInsideLFLF, font= ('arial', 15 ,'bold'), text="Over Time",fg="Blue", bd=10, anchor='w')

lblOverTime.grid(row=2,column=0)

txtOverTime = Entry(LeftInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="yellow"

,textvariable=OverTime)

txtOverTime.grid(row=2,column=1)

lblGrossPay= Label(LeftInsideLFLF, font= ('arial', 15 ,'bold'), text="Gross Pay",fg="Blue", bd=10, anchor='w')

lblGrossPay.grid(row=3,column=0)

txtGrossPay = Entry(LeftInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue"

,textvariable=GrossPay)

txtGrossPay.grid(row=3,column=1)

lblNetPay= Label(LeftInsideLFLF, font= ('arial', 15 ,'bold'), text="Net Pay",fg="Blue", bd=10, anchor='w')

lblNetPay.grid(row=4,column=0)

txtNetPay = Entry(LeftInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue"

,textvariable=NetPay)

txtNetPay.grid(row=4,column=1)

#------------------------------LEFT SIDE INNER RIGHT PART---------------------------------------------------

lblTax = Label(LeftInsideRFRF, font= ('arial', 15 ,'bold'), text="Tax",fg="Blue", bd=10, anchor='w')

lblTax.grid(row=0,column=0)

txtTax = Entry(LeftInsideRFRF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue"

,textvariable=Tax)

txtTax.grid(row=0,column=1)

lblPension= Label(LeftInsideRFRF, font= ('arial', 15 ,'bold'), text="Pension",fg="Blue", bd=10, anchor='w')

lblPension.grid(row=1,column=0)

txtPension = Entry(LeftInsideRFRF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue"

,textvariable=Pension)

txtPension.grid(row=1,column=1)

lblStudentLoan= Label(LeftInsideRFRF, font= ('arial', 15 ,'bold'), text="Student Loan",fg="Blue", bd=10, anchor='w')

lblStudentLoan.grid(row=2,column=0)

txtStudentLoan = Entry(LeftInsideRFRF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue"

,textvariable=StudentLoan)

txtStudentLoan.grid(row=2,column=1)

lblAttendance= Label(LeftInsideRFRF, font= ('arial', 15 ,'bold'), text="Attendance",fg="Blue", bd=10, anchor='w')

lblAttendance.grid(row=3,column=0)

txtAttendance = Entry(LeftInsideRFRF,font=('arial',12,'bold'),bd=10,width=18,bg="yellow"

,textvariable=Attendance)

txtAttendance.grid(row=3,column=1)

lblDeductions= Label(LeftInsideRFRF, font= ('arial', 15 ,'bold'), text="Deductions",fg="Blue", bd=10, anchor='w')

lblDeductions.grid(row=4,column=0)

txtDeductions = Entry(LeftInsideRFRF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue"

,textvariable=Deductions)

txtDeductions.grid(row=4,column=1)

#=============================================RIGHT SIDE==============================================================

#-----------------------------------RIGHT SIDE TOP PART-----------------------------------------------------------

lblPostCode = Label(RightInsideLF, font= ('arial', 15 ,'bold'), text="Post Code",fg="Blue", bd=10, anchor='w')

lblPostCode.grid(row=0,column=0)

txtPostCode = Entry(RightInsideLF,font=('arial',12,'bold'),bd=10,width=40,bg="yellow",textvariable=PostCode)

txtPostCode.grid(row=0,column=1)

lblGender= Label(RightInsideLF, font= ('arial', 15 ,'bold'), text="Gender",fg="Blue", bd=10, anchor='w')

lblGender.grid(row=1,column=0)

txtGender = Entry(RightInsideLF,font=('arial',12,'bold'),bd=10,width=40,bg="yellow",textvariable=Gender)

txtGender.grid(row=1,column=1)

#--------------------------------------RIGHT SIDE INNER LEFT PART-------------------------------------

lblPayDate = Label(RightInsideLFLF, font= ('arial', 15 ,'bold'), text="Pay Date",fg="Blue", bd=10, anchor='w')

lblPayDate.grid(row=0,column=0)

txtPayDate = Entry(RightInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue" ,textvariable=PayDate)

txtPayDate.grid(row=0,column=1)

lblTaxPeriod = Label(RightInsideLFLF, font= ('arial', 15 ,'bold'), text="Tax Period",fg="Blue", bd=10, anchor='w')

lblTaxPeriod.grid(row=1,column=0)

txtTaxPeriod = Entry(RightInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue" ,textvariable=TaxPeriod)

txtTaxPeriod.grid(row=1,column=1)

lblNICode = Label(RightInsideLFLF, font= ('arial', 15 ,'bold'), text="NI Code",fg="Blue", bd=10, anchor='w')

lblNICode.grid(row=3,column=0)

txtNICode = Entry(RightInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue" ,textvariable=NICode)

txtNICode.grid(row=3,column=1)

lblTaxablePay = Label(RightInsideLFLF, font= ('arial', 15 ,'bold'), text="Taxable Pay",fg="Blue", bd=10, anchor='w')

lblTaxablePay.grid(row=4,column=0)

txtTaxablePay = Entry(RightInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue",textvariable=TaxablePay)

txtTaxablePay.grid(row=4,column=1)

lblPensionablePay = Label(RightInsideLFLF, font= ('arial', 15 ,'bold'), text="Pensionable Pay",fg="Blue", bd=10

,anchor='w')

lblPensionablePay.grid(row=5,column=0)

txtPensionablePay = Entry(RightInsideLFLF,font=('arial',12,'bold'),bd=10,width=18,bg="powder blue"

,textvariable=PensionablePay)

txtPensionablePay.grid(row=5,column=1)

#==========================COMMANDS OF BUTTONS=======================================

def Exit():

payroll.destroy()

def Reset():

EmployeeName.set(" ")

Address.set(" ")

Reference.set(" ")

EmployerName.set(" ")

CityWeighting.set(" ")

BasicSalary.set(" ")

OverTime.set(" ")

GrossPay.set(" ")

NetPay.set(" ")

Pension.set(" ")

StudentLoan.set(" ")

Attendance.set(" ")

Deductions.set(" ")

PostCode.set(" ")

Gender.set(" ")

PayDate.set(" ")

TaxPeriod.set(" ")

NICode.set(" ")

TaxablePay.set(" ")

PensionablePay.set(" ")

Tax.set(" ")

def PayRef():

PayDate.set(time.strftime("%d/%m/%y"))

Refpay=random.randint(20000, 70000)

Refpaid= ("PR" + str(Refpay))

Reference.set(Refpaid)

def PayPeriod():

i = datetime.datetime.now()

TaxPeriod.set(i.month)

NCode = random.randint(3000,8000)

ICode = ( "NIC" + str(NCode))

NICode.set(ICode)

def MonthlySalary():

BS = float(BasicSalary.get())

CW = float(CityWeighting.get())

OT = float(OverTime.get())

AT = float(Attendance.get())

MTax = ((BS + CW + OT + AT)\* 0.013)

TTax= "₹" , str('%.2f'%(MTax))

Tax.set(TTax)

MPension = ((BS + CW + OT + AT)\* 0.04)

APsn = "₹" , str('%.2f' %(MPension))

Pension.set(APsn)

MLoan=((BS + CW + OT + AT)\* 0.015)

ALn= "₹" , str('%.2f' %(MLoan))

StudentLoan.set(ALn)

Deduction = (MTax + MPension + MLoan )

Deduct = "₹", str('%.2f' % (Deduction))

Deductions.set(Deduct)

GPay = "₹", str('%.2f' % (BS + CW + OT + AT))

GrossPay.set(GPay)

Nett= (BS + CW + OT + AT) - Deduction

NetAmnt= "₹" , str('%.2f' % (Nett))

NetPay.set(NetAmnt)

TaxablePay.set(TTax)

PensionablePay.set(APsn)

#----------------------------------------------RIGHT SIDE INNER RIGHT PART-----------------------------------------

#--------------------------------------------BUTTONS FOR PROGRAM-----------------------------------------------

btnWagePayment=Button(RightInsideRFRF,pady=8,bd=8 ,fg="black", font=('arial', 12,'bold'),width=14,

text="Wage Payment",

bg="silver",command=MonthlySalary).grid(row=0,column=0)

btnReset=Button(RightInsideRFRF,pady=8,bd=8 ,fg="black", font=('arial', 12,'bold'),width=14,

text="Reset",

bg="silver",command=Reset).grid(row=1,column=0)

btnPayRef=Button(RightInsideRFRF,pady=8,bd=8 ,fg="black", font=('arial', 12,'bold'),width=14,

text="Pay Reference",

bg="silver",command=PayRef).grid(row=2,column=0)

btnPayCode=Button(RightInsideRFRF,pady=8,bd=8 ,fg="black", font=('arial', 12,'bold'),width=14,

text="Pay Code",

bg="silver",command=PayPeriod).grid(row=3,column=0)

btnExit=Button(RightInsideRFRF,pady=10,bd=8 ,fg="black", font=('arial', 12,'bold'),width=14,

text="Exit",

bg="red",command=Exit).grid(row=4,column=0)

payroll.mainloop()