INCOME TAX CALCULATOR using GUI & python database

BACHELOR OF TECHNOLOGY

in

COMPUTER SCIENCE AND ENGINEERING

By:

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Objective

The primary objective of this project is to implement what we've learnt throughout our course of Python programming and use that to develop a Graphical User Interface (GUI) for Income Tax Calculator with all the required functionalities. This project also aims at providing a user and government to use and pay the income tax to the government.

It is a calculator to test the how much tax that people paying to the government about a certain amount. Through this project we aims to target that how much money that across the country paying tax to the government. This is the brief information the common man that how much tax he is paying to the government and he knows himself that how to calculate and why we are giving to the government.

Income Tax help students learn

Here the students will learn that mainly

what is income tax ?

why we pay to government ?

what is the use of it?

How much tax it assume for particular amount of money?

Through this project we hope to improve the knowledge of the students.

Introduction

This is a Tax application using GUI & python database. Today these income tax applications become a very popular intenction tool. The innovation in the field of science and technology has made our lives easy and hence there is a lack of types to calculate income tax were made by present generation students to different types taxes we are paying to government .By knowing how to pay tax we can calculate how much money we are contributing to our government .This tax is changes by year – to – year.

This project is no exception ,it has been coded in python and comes with in a graphical interface to fecilitate the tax department. This project has different modules which includes, tkinter, Message Box, Geometry, Title, Frame, Close window, Lable, Grid, Button, Relif, Place , entry box etc…

Contents

Tkinter:

- Tkinter in python GUI programming is standard python GUI library .it gives us an object-oriented interface to the TK GUI toolkit. To create the GUI application main window is “Import the Tkinter Module”.
- Tkinter provides various controls , such as buttons, labels and text boxes in GUI application. these controls are commonly called widgets.
- Creating a GUI application using tkinter is an easy task. that all we need to perform the task.

MESSAGE BOX:

The income tax calculator Message Box module is used to display message boxes in your application.

This module provides number of functions that we use to display an appropriate message.

Message box gives pop up sound to the user to close the particular window what thay are using.

GEOMETRY:

All tkinter widgets have acces to specific geometry management methods, which have the purpose of organizing widgets through out the parent widget area.

Geometry is used to set the dimensions of the tkinter window and it is used to set the the position of the main window on the users desktop.

With the help of geometry we are setting our own dimensions that how much we need.

One window can divide many sub windows with the help of geometry tkinter.

TITLE:

Title is a main name that we call application / code with a single and permanent name this is called title.

Title also attracts the users to see the code inside what present.

With the help of title we can impress the users.

Here we use the title for knowing the name of the project.

FRAME:

The frame widget is used as a container widget to organize other widgets.

The frame widget is very important for the process of grouping and organizing other widgets in a friendly way.

In one window we can place multiple frames, each frame has its own spacality to do the function .

Here we use frames to attract and design purpose.the output screen of our code is too small so to attract we use frame to attract.

CLOSE WINDOW:

Close window is use to close the present window of the pc / computer.

After closing the window with the help of close window the code will won't stop it runs in back end.

We can also execute code without closing window.

Here we use close window to show how the window is closing and how the code is executing in backend purpose.

LABEL:

The label widget is used to provide a single-line caption for other widgets.it can also contains images.

This widget is implements a display box where you can place text or images.

The text displayed by this widget can be updated at any time we need.

It is also possible to underline part of the text and span the text across multiple lines.

GRID:

Grid method is a geometry manager organizes widgets in a table-like structure in the parent widget.

Grid layout is a 2 dimensional layer structure.

Grid convert our window into rows and columns tables.

Here we used grid to keep list boxes in rows and column pattern.

BUTTON:

The button widget is used to display in our application.
Here we use submit button to submit the entered amount and to get how much tax we paid.

PLACE:

Place geometry is used for geometry organizes widgets by placing them in a specific position in the parent widget.
It allows you explicitly set the position and size of a window, either in absolute terms, or relative to the another window.
This geometry manager uses the options anchor, border mode, height, width, rel height, rel width, relx, rely.

Entry box:

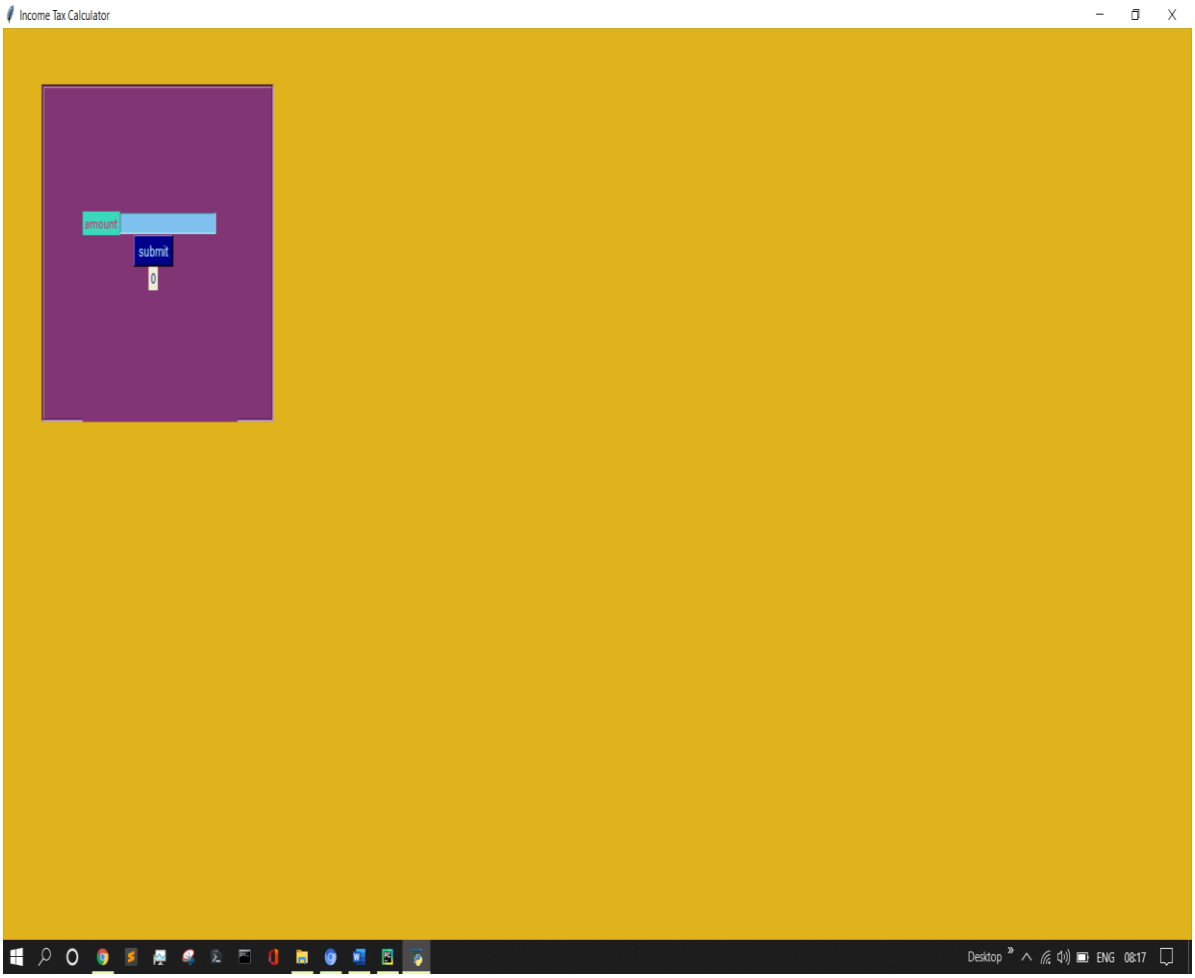
The entry widget is used to display a single-line text field for accepting values for user.
We use entry box to take amount from the user and to calculate the tax.

GUI SCREEN SHORTS:

1. Calculator interface:

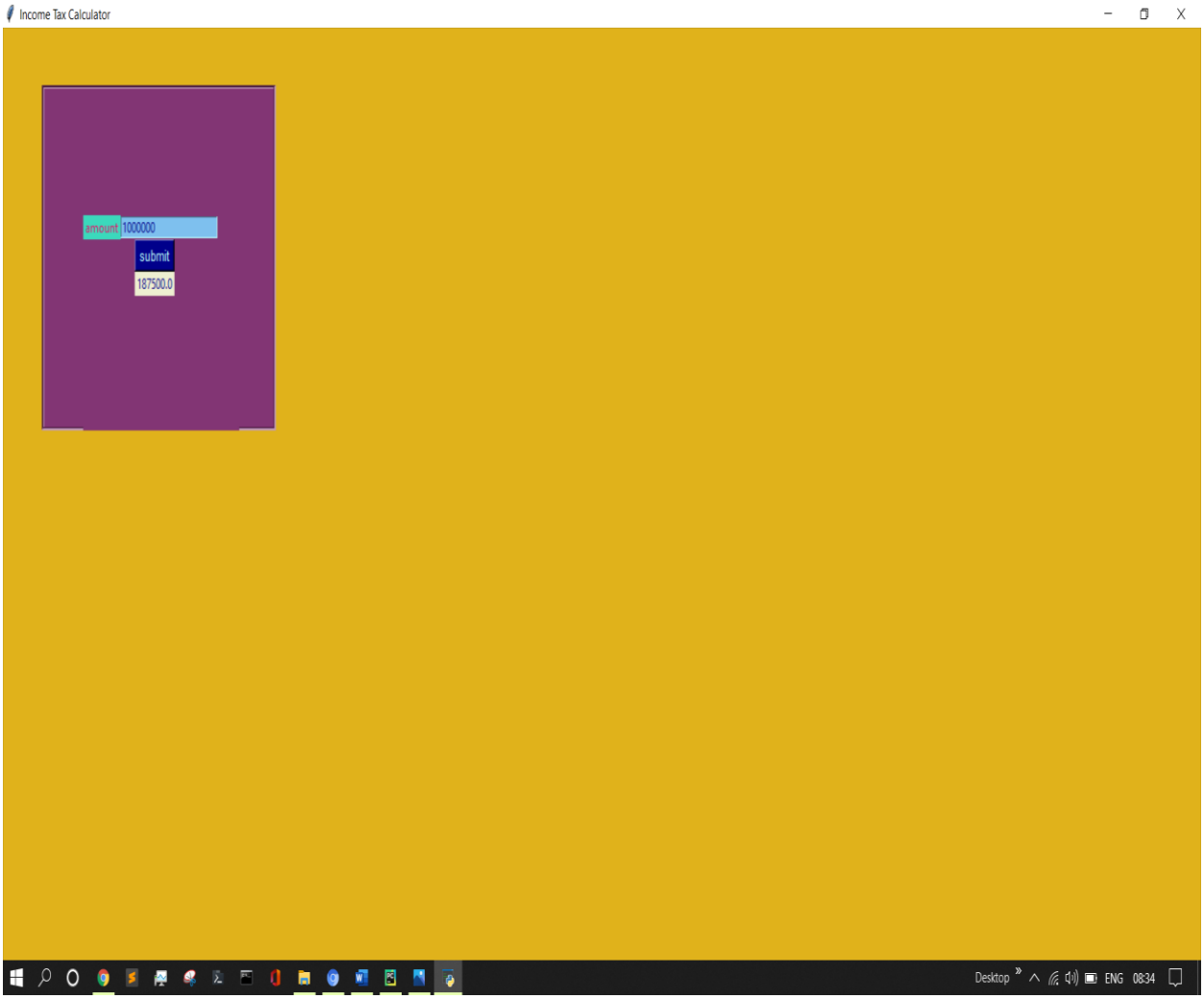
In screen login window will display to enter an amount to pay income tax and submit button to submit it.

Here down of submit button shows 0 that means if were not enter amount it shows automatically 0.



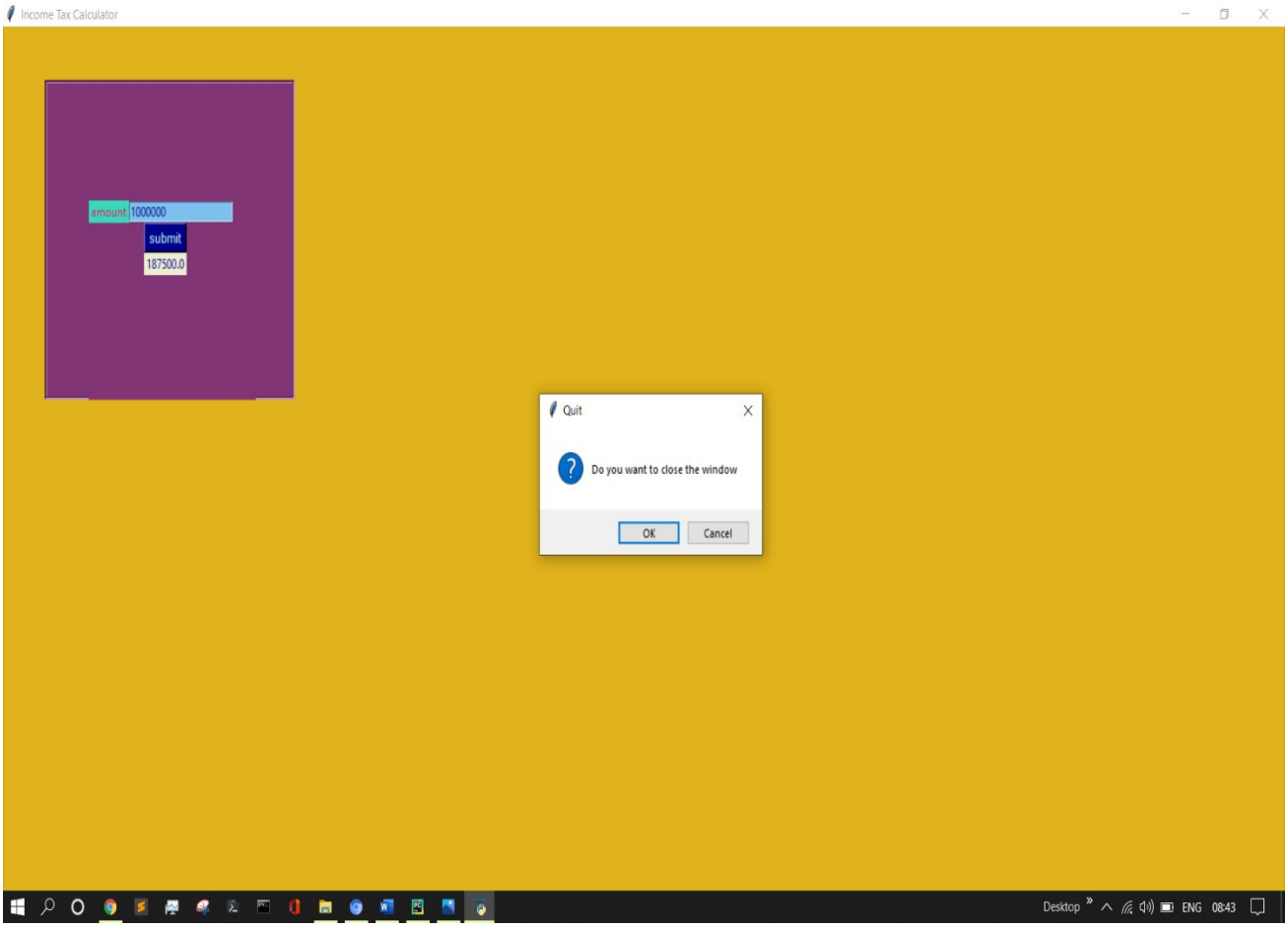
2. Tax Calculation Window:

In this window we enter the money and we press submit button it shows automatically how much tax we are paying to the government directly with decimal values.



3. Message Box:

Message box gives pop-up sound while closing running window.it gives message to check once before closing a window.



Source Code:

```
from tkinter import *
from tkinter import messagebox
root=Tk()
root.geometry("400x400")
root.title("Income Tax Calculator")
root.configure(bg="#e0b21b")
f1=Frame(root,bg="#823574",relief="groove",bd=3)
f1.place(x=50,y=50,width=300,height=300)
f2=Frame(f1,bg="#823574")
f2.place(x=50,y=110,width=200,height=200)
def closewindow():
    result=messagebox.askokcancel("Quit","Do you want to close the
window")
    if result:
        quit()
root.protocol("WM_DELETE_WINDOW",closewindow)

def taxamount():
    a2=int(a1.get())
    if a2>=250001 and a2<500000:
        tax=5
        return entryer.set(str(a2 * (tax/100)))
    elif a2 >=500001 and a2 <750000:
        tax=10
        return entryer.set(str((a2 * (tax/100)+12500)))
    elif a2 >=750001 and a2<=1000000:
        tax=15
        return entryer.set(str((a2 * (tax / 100) + 37500)))
    elif a2 >= 1000001 and a2 <= 1250000:
        tax = 20
        return entryer.set(str((a2 * (tax / 100) + 75000)))
    elif a2 >= 1250001 and a2 <= 1500000:
        tax = 25
        return entryer.set(str((a2 * (tax / 100) + 125000)))
    elif a2 >= 1500001:
        tax =30
        return entryer.set(str((a2 * (tax / 100) + 187500)))
    else:
        return entryer.set("0")

a = Label(f2, text="amount",background="#3bd9bc",foreground="#e01b6d")
a.grid(row=0,column=0)

a1 = Entry(f2,background="SkyBlue2",foreground="blue4")
a1.grid(row=0,column=1,columnspan=2)
button = Button(f2,text="submit", bg="blue4", font=("bold", 10),
fg="PaleTurquoise1", command=taxamount)
button.grid(row=1,column=1)

entryer = StringVar()
entryer.set(0)

totaltax=Label(f2, textvariable=entryer,bg="LightYellow2",fg="blue4")
totaltax.grid(row=2,column=1)

#listbx=Listbox(f2)
```

```
#listbx.insert(0,"income tax slab            -      tax applicable as per
new regime")
#listbx.insert(1,"Rs.0 - Rs.250000           -          nill")

#listbx.insert(2,"Rs.250001 - Rs.500000      -          5.00%")
#lstbx.insert(3,"Rs.500001 - Rs.750000       -         12500+10%")
#listbx.insert(4,"Rs.750001 - Rs.1000000     -          37500+15%")
#listbx.insert(5,"Rs.1000001 - Rs.1250000    -          75000+20%")
#listbx.insert(6,"Rs.1250001 - Rs.1500000    -          125000+25%")
#listbx.insert(7,"Rs.1500001                 -          125000+30%")
#listbx.grid(row=3,column=0,columnspan=3)
root.mainloop()
```

Results:

We successfully got the final product as a " Income Tax Calculator" that includes all the mentioned modules. We learnt how to make a GUI using TKinter in python

This calculator offers only to calculate the income tax . with this common people also knows how to calculate the income tax. and he can calculate the total tax that paying by our population to the government. Main intension to create this project is for common people should know how to calculate the income tax. and how much amount tax they are paying for government by year- by – year.

Though this project we have learnt about unity, how to work as a team ,how to we should react for others decisions & ideas, how to manage the time, how to manage resources , how to solve the problems with together.

Discussion:

It was a wonderful and learning experience for me while working on this project . this project took me to the maxious phases of project development and gave me real insight into the world .

I think this project was successful because I was able to expend my knowledge of GUI part of tkinter in python and coding. I learned first time to create a window and adding title ,frames, geometry ,message box etc .

I would have tried to complete coding faster so that I could apply GUI knowledge to create a window with the help of coding.

References:

- Pms
- https://www.python-course.eu/index.php
- www.tutorialspoint.com
- https://stackoverflow.com/
- www.blog.pythonlibrary.org