# Python Project

## Objective: To make a simple data-entry form using Python GUI.

This Project is submitted by:

Agnibha Chakraboty (Roll No.: 08)

Soumyajit Chakraborty (Roll No.: 09)

Raunak Dey (Roll No.: 19)

Aritra Ganguly (Roll No.: 23)

of Department of Computer Science and Engineering (CSE), St. Thomas College of Engineering and Technology, 3rd Semester, Batch 2021-25.

## Synopsis:

The title of the project is Data Entry Form with Unique Token Generator. The aim of the project is to build a data entry form which will generate a unique token number for every data that is entered. The above form is created to save the data of the students of a particular institution. Given below is a gist of the code that is written.

The above code is a Python script that creates a GUI application using the tkinter library. The purpose of the application is to allow the user to enter various pieces of personal information, such as their name, date of birth, gender, and so on, and then save this information to a CSV file called data_entry.csv. The application has a number of form fields for the user to fill out, as well as a Save button and a Clear button. When the user clicks the Save button, the current values of the form fields are checked and then written to the CSV file. If the user clicks the Clear button, all of the form fields are cleared. The script also includes some additional functionality, such as the ability to select a date from a calendar widget and the use of drop-down menus to select certain options.

## Code:

```
from csv import *
from tkinter import *
from tkinter import messagebox
import os

from tkcalendar import DateEntry

x=1000000

window=Tk()
window.configure(bg = "lightblue")
```

```python
window.title("Data Entry")
window.geometry("700x600")

with open("data_entry.csv","w") as file:
 Writer=writer(file)
 Writer.writerow(["Name","Date of Birth","Gender","Semester","Contact","Address","Collage
Name","Department","Token Number"])

for i in range(50):
    window.columnconfigure(i, weight=1)
    window.rowconfigure(i, weight=1)

def Save():
    if checkbox_var.get()!= 1:
        messagebox.showinfo("Error",f"Please agree to the terms and conditions")
        return
    global x
    x = x+ 1
    lst=[name.get(),age.get(),gender.get(),sem.get(),contact.get(),address.get(),collagename.get(),Dep
artment.get(),x]

    with open("data_entry.csv","a") as file:
        Writer=writer(file)
        Writer.writerow(lst)
    messagebox.showinfo("Information",f"The data has been added successfully\n\nUnique Token
No: {x}")
    return x


def Clear():
    name.delete(0,END)
    age.delete(0,END)
    gender.set("Select Gender")
    sem.set("Select Semester")
    contact.delete(0,END)
    address.delete(0,END)
    collagename.delete(0,END)
    Department.set("Select Your Department")
```

```python
# Heading

heading_label = Label(window, text="DATA ENTRY APPLICATION", font=("italicbold",
20),activebackground="blue", bg="blue", fg="white")


# Center the alignment
heading_label.grid(row=0,column = 25, padx= 20, pady=10)


# labels,  buttons, entry fields
label1=Label(window,text="Name: ",padx=10,pady=10,background="lightblue",foreground="black")
label2=Label(window,text="Date of Birth(DD/MM/YYYY):
",padx=10,pady=10,background="lightblue",foreground="black")
label21=Label(window,text="Gender:
",padx=10,pady=10,background="lightblue",foreground="black")
label22=Label(window,text="Semester:
",padx=10,pady=10,background="lightblue",foreground="black")
label3=Label(window,text="Contact:
",padx=10,pady=10,background="lightblue",foreground="black")
label31=Label(window,text="Address:",padx=10,pady=11,background="lightblue",foreground="blac
k")
label4=Label(window,text="Collage name:
",padx=10,pady=10,background="lightblue",foreground="black")
label5=Label(window,text="Department:
",padx=10,pady=10,background="lightblue",foreground="black")


name=Entry(window,width=30,borderwidth=3)


age = DateEntry(window, selectmode = 'day')


def grad_date():
    date.config(text = "Selected Date is: " + age.get_date())


date = Label(window, text = "")


gender=StringVar(window)
gender.set("Select Gender")
drop_menu1=OptionMenu(window,gender,"Male","Female","Others")
```

```python
sem=StringVar(window)
sem.set("Select Semester")
drop_menu2=OptionMenu(window,sem,1,2,3,4,5,6,7,8)

contact=Entry(window,width=30,borderwidth=3)
address = Entry(window,width = 30 , borderwidth = 4)
collagename=Entry(window,width=30,borderwidth=3)

Department = StringVar(window)
Department.set("Select Your Department")
drop_menu = OptionMenu(window, Department,"Computer Science and Engineering(CSE)",
"Information Technology(IT)","Electronics and Communication Engineering(ECE)","Electrical
Engineering(EE)","Artificial Intelligence and Machine Learning(AI&ML)")

checkbox_var = IntVar()
checkbox = Checkbutton(window, text="I agree to the terms and conditions",
variable=checkbox_var)
checkbox.grid(row=26,column=25,columnspan=2)

save=Button(window,text="Save",font="Arial
12",padx=7,pady=5,background="Blue",foreground="White",command=Save)

clear=Button(window,text="Clear",font = "Arial
12",padx=7,pady=5,background="Blue",foreground="White",command=Clear)
Exit=Button(window,text="Exit",font="Arial
12",padx=7,pady=5,background="red",foreground="White",command=window.quit)

label1.grid(row=10,column=24)
label2.grid(row=12,column=24)
label21.grid(row=14,column=24)
label22.grid(row=16,column=24)
label3.grid(row=18,column=24)
label31.grid(row =20, column=24)
label4.grid(row = 22,column=24)
label5.grid(row = 24,column=24)

name.grid(row=10,column=25)
age.grid(row=12,column=25)
drop_menu1.grid(row=14,column=25)
drop_menu2.grid(row=16,column=25)
contact.grid(row=18,column=25)
```

```python
    address.grid(row=20,column=25)
    collagename.grid(row=22,column=25)
    drop_menu.grid(row=24,column=25)
    save.grid(row=28,column=25,columnspan=2)
    clear.grid(row=26,column=26,columnspan=2)
    Exit.grid(row=28,column=26,columnspan=2)

    def DataFile():
        try:
            os.startfile("data_entry.csv")
        except:
            messagebox.showinfo("Error",f"File does not exist")

    def Delete():
        try:
            os.remove("data_entry.csv")
            messagebox.showinfo("INFO",f"File has been deleted")
        except:
            messagebox.showinfo("Error",f"File does not exist")

    menubar = Menu(window)

    # MenuBar :
    filemenu = Menu(menubar, tearoff = 0)

    menubar.add_cascade(label = 'Options', menu = filemenu)

    filemenu.add_command(label = "Open the data file", command = DataFile)
    filemenu.add_command(label = "Delete the data file", command = Delete)

    window.config(menu=menubar)
    window.mainloop()
'''
Data Entry Project (CSE, 2nd year,Batch = 2021-2025)
Members:
Raunak Dey(Roll Number : 19)
Agnibha Chakraborty(Roll number : 08)
Aritra Ganguly(Roll number : 23)
Soumyajit Chakraborty(Roll number : 09)
'''
```

## Result: