

Python Project

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

This Project is submitted by:

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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")
```

```

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")

```

```
# 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="black")
```

```
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")
```

```
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)
```

```

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:

Data Entry

Options

DATA ENTRY APPLICATION

Name:

Date of Birth(DD/MM/YYYY):

4/2/03

▼

Gender:

Male

└─┘

Semester:

3

└─┘

Contact:

Address:

College name:

Department:

☒ I agree to the terms and conditions

Clear

Exit

Save

The screenshot displays a web-based 'Data Entry' application. The interface features a light blue background. At the top, a dark blue header contains the text 'DATA ENTRY APPLICATION'. Below this, the form is organized into several rows, each with a label and an input field. The 'Name' field is filled with 'Anjan Dey'. The 'Date of Birth' field shows '4/2/03'. The 'Gender' field has a dropdown menu currently set to 'Male'. The 'Semester', 'Contact', and 'Address' fields are empty. The 'Collage name' field contains 'ge of Engineering and Technology'. The 'Department' field is filled with 'Computer Science and Engineering(CSE)'. A modal dialog box titled 'Information' is centered on the screen, displaying a message: 'The data has been added successfully' followed by 'Unique Token No: 1000005'. An 'OK' button is located at the bottom of this dialog. At the bottom of the main form, there is a checkbox labeled 'I agree to the terms and conditions' which is checked. To the right of this checkbox are three buttons: 'Clear' (blue), 'Save' (blue), and 'Exit' (red).

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Clipboard: Cut, Copy, Paste, Format Painter
Font: Calibri, 11, Bold, Italic, Underline, Paragraph styles, Font color, Background color
Alignment: Wrap Text, Merge & Center
Number: General, Currency, Percentage, Decimals, Fractions
Styles: Conditional Formatting, Format as Table, Cell Styles
Cells: Insert, Delete, Format
Editing: AutoSum, Fill, Clear, Sort & Filter, Find & Select, Comments, Share

Name	Date of Birth	Gender	Semester	Contact	Address	Collage Name	Department	Token Number
Sayan Majumdar	5/14/03	Male	3	7654214564	73, Bidhan Sarani, Kolkata	St. Thomas' College of Engineering and Technology	Electronics and Communication Engineering(ECE)	1000001
Sattik Chakraborty	11/29/02	Male	5	9467284319	34, Chittaranjan Avenue, Kolkata	Techno India University	Information Technology(IT)	1000002
Tanisha Mukherjee	2/13/03	Female	3	8674321867	68, Rashbehari Avenue, Kolkata	Netaji Subhash Engineering College	Electrical Engineering(EE)	1000003
Tamal Goswami	12-08-2002	Male	1	9461302768	16, Chowringhee Road, Kolakata	Meghnad Saha Institute of Technology	Computer Science and Engineering(CSE)	1000004
Anjan Dey	04-02-2003	Male	3	8734926781	26, Amherst Street, Kolkata	St. Thomas' College of Engineering and Technology	Computer Science and Engineering(CSE)	1000005

data_entry