TASK3-PASSWORD GENERATOR APPLICATION

PROJECT TITLE:

Password Generator GUI App

DESCRIPTION:

A graphical user interface application built using CustomTkinter that allows users to generate strong, random passwords of user-specified length using letters, digits, and punctuation characters.

FEATURES:

1. CustomTkinter-based dark-themed UI.
2.Input for password length.
3.Validates for positive integers.
4.Generates secure passwords using random and string modules.

TECHNOLOGIES USED:

1.Python
2.CustomTkinter
3.random, string modules

TARGET USERS:

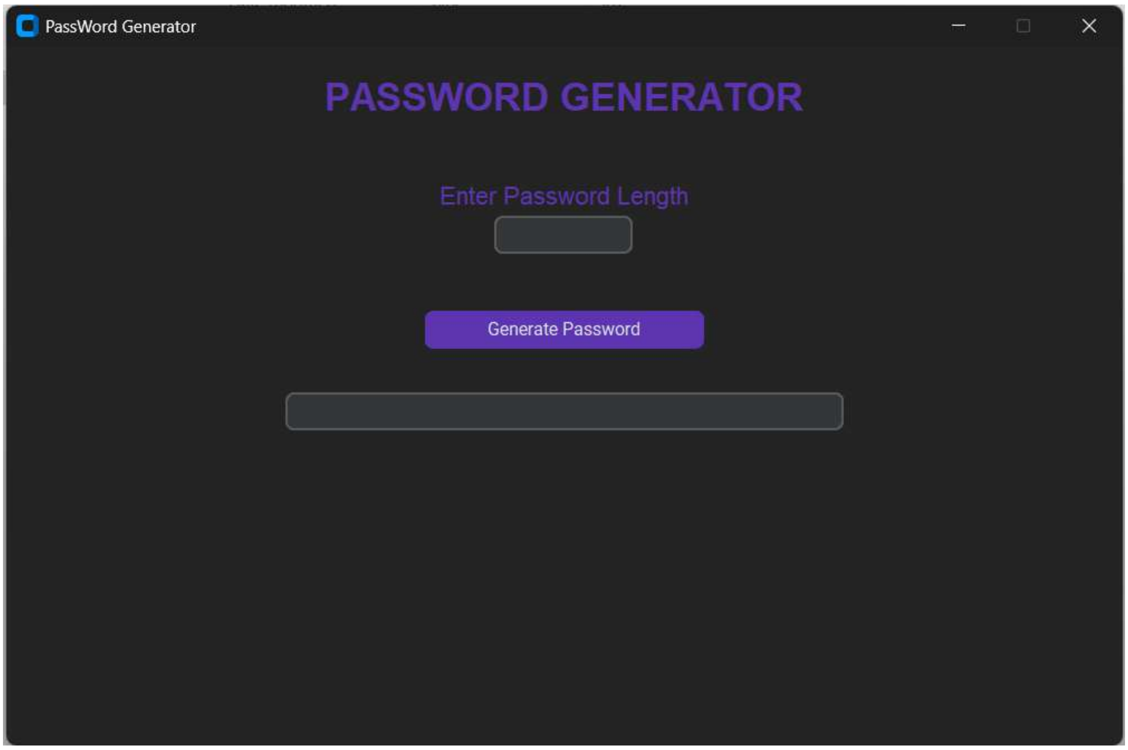
1.General users seeking strong password generation.
2.Security and privacy-conscious individuals.

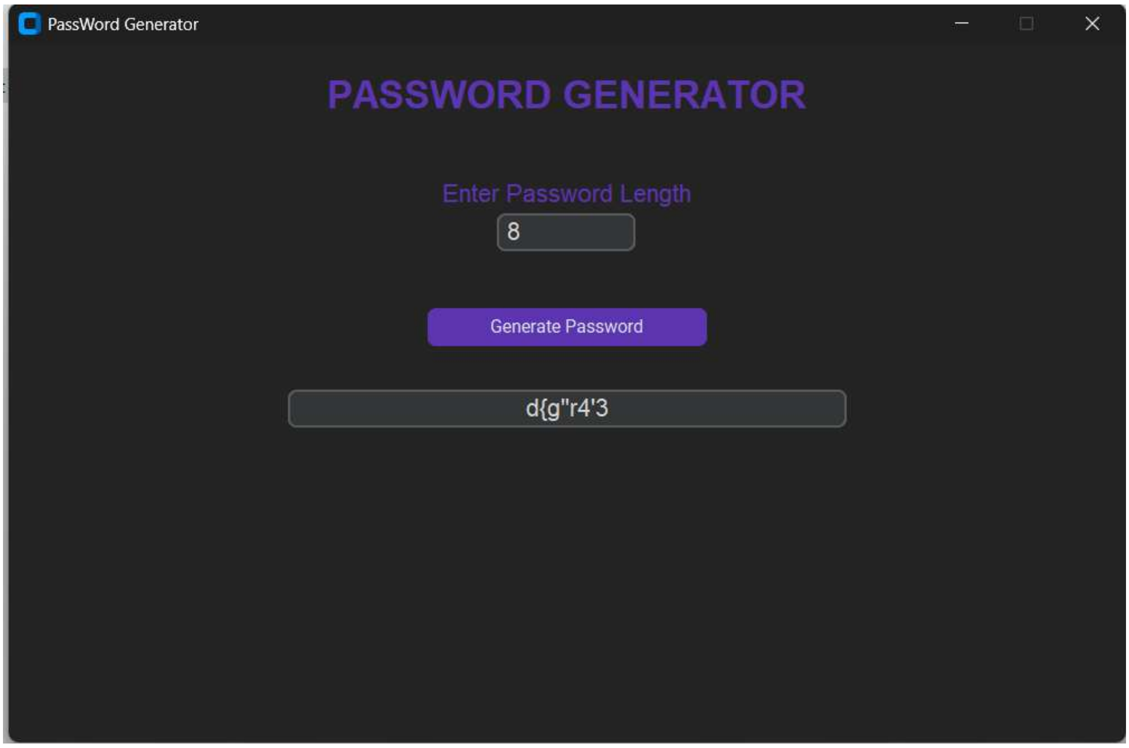
APPENDIX:

```
import customtkinter as ctk
import random
import string

#Creating the class for Password Generation
class PasswordGeneratorApp(ctk.CTk):
   def __init__(self):
      super().__init__()
      self.title("PassWord Generator")
      self.geometry("800x500")
      self.resizable(False,False)
      ctk.set_appearance_mode("dark")
      ctk.set_default_color_theme("dark-blue")

      self.create_widgets()

   #Labeling all the elements in the page
   def create_widgets(self):
      self.title_label = ctk.CTkLabel(self,text="PASSWORD
GENERATOR",font=("Arial",28,"bold"),text_color="#5e35b1")
      self.title_label.pack(pady=20)

      self.lenght_frame = ctk.CTkFrame(self,fg_color="transparent")
      self.lenght_frame.pack(pady=20)

      self.lenght_label=ctk.CTkLabel(self.lenght_frame,text="Enter
Password Length",font=("Arial",18),text_color="#5e35b1")
      self.lenght_label.grid(row=0,column=0,padx=10)

      self.lenght_entry =
ctk.CTkEntry(self.lenght_frame,width=100,font=("Arial",18))
      self.lenght_entry.grid(row=1,column=0)
```

```
    self.gen_button= ctk.CTkButton(self,text="Generate
Password",fg_color="#5e35b1",command=self.generate_password,
width=200,)
    self.gen_button.pack(pady=20)

    self.password_out =
ctk.CTkEntry(self,width=400,font=("Arial",18),justify="center")
    self.password_out.pack(pady=10)

  #Function for Password generation using random module.
  def generate_password(self):
    try:
      length = int(self.lenght_entry.get())
      if length <=0:
        self.password_out.delete(0,'end')
        self.password_out.insert(0,"Enter positive number!")
        return


      chars = string.ascii_letters + string.digits + string.punctuation
      password = ''.join(random.choice(chars) for _ in
range(length))

      self.password_out.delete(0,'end')
      self.password_out.insert(0,password)
    except ValueError:
      self.password_out.delete(0,'end')
      self.password_out.insert(0,"Please Enter a Valid Number!!")

app=PasswordGeneratorApp()
app.mainloop()
```

OUTPUTS:





Enter Password Length: 8

```
d{g"r4'3
```