

## Python\Password Genrator.py

```
1  from tkinter import Tk,Label,BOTTOM,IntVar,Spinbox,StringVar,Button,Entry
2  import random, string
3  import pyperclip
4
5  root = Tk()
6  root.geometry("400x400")
7  root.resizable(0,0)
8  root.title("PYTHON PROJECT - PASSWORD GENERATOR")
9
10 Label(root, text='PASSWORD GENERATOR', font='arial 15 bold').pack()
11 Label(root, text='Python', font='arial 15 bold').pack(side=BOTTOM)
12
13 pass_label = Label(root, text='PASSWORD LENGTH', font='arial 10 bold').pack()
14 pass_len = IntVar()
15 length = Spinbox(root, from_=8, to_=32, textvariable=pass_len, width=15).pack()
16 pass_str = StringVar()
17
18 def Generator():
19     password = []
20
21     # Ensuring at least one character from each type (Uppercase, Lowercase, Digits, Punctuation)
22     if pass_len.get() >= 4:
23         password.append(random.choice(string.ascii_uppercase))
24         password.append(random.choice(string.ascii_lowercase))
25         password.append(random.choice(string.digits))
26         password.append(random.choice(string.punctuation))
27
28         # Fill the rest with random choices until the specified length
29         for _ in range(pass_len.get() - 4):
30             password.append(random.choice(string.ascii_uppercase + string.ascii_lowercase + string.digits + string.punctuation))
31
32         # Shuffle to ensure randomness
33         random.shuffle(password)
34     else:
```

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35     # If length is less than 4, just fill the required length with random choices
36     for _ in range(pass_len.get()):
37         password.append(random.choice(string.ascii_uppercase + string.ascii_lowercase + string.digits + string.punctuation))
38
39     # Convert list to string and set it to the variable
40     pass_str.set(''.join(password))
41
42
43
44 def Copy_password():
45     pyperclip.copy(pass_str.get())
46
47 Button(root, text='GENERATE PASSWORD', command=Generator).pack(pady=5)
48 Entry(root, textvariable=pass_str).pack()
49 Button(root, text='COPY TO CLIPBOARD', command=Copy_password).pack(pady=5)
50
51 root.mainloop()
```

