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[]: # this is the program that i have written to generate the password
                                                                                                                                                                                        import random
       d=['z','x','c','v','b','n','m','a','s','d','f','g','h','j','k','l','q','w','e','r','t','y','u','i','o','p']
y=['Z','X','C','V','B','N','M','A','S','D','FF,'G','H','J','K','L','Q','W','E','R','T','Y','U','I','O','P']
q=['1','2','3','4','5','6','7','8','9','0']
s=['!','@','#','$','%','^','&','*','(']
        e=int(input("how many digits in password? : "))
       a=int(input("how many lower letters? : "))
b=int(input("how many upper letters? : "))
       o=int(input("how many numbers u want in your password : "))
w=int(input("how many special characters? : "))
        if (a+b+o+w == e):
             Q=random.sample(d,a)
             A=random.sample(y,b)
            T=random.sample(q,o)
             R=random.sample(s,w)
             D=Q+A+T+R
             random.shuffle(D)
             F=''.join(D)
             print(F)
        else:
             print(f"u selected the password length to be {e} but u entered , lower letters {a}, upper {b}, numbers {o}, symbols {w}, so password not possible sorr
       4
```