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# Password Generator Project
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```
import random
```

```
letters = ['a', 'b', 'c', 'd', 'e', 'f', 'g', 'h', 'i', 'j', 'k', 'l', 'm', 'n', 'o', 'p', 'q', 'r',  
's', 't', 'u', 'v',  
          'w', 'x', 'y', 'z', 'A', 'B', 'C', 'D', 'E', 'F', 'G', 'H', 'I', 'J', 'K', 'L', 'M', 'N',  
'O', 'P', 'Q', 'R',  
          'S', 'T', 'U', 'V', 'W', 'X', 'Y', 'Z']
```

```
numbers = ['0', '1', '2', '3', '4', '5', '6', '7', '8', '9']
```

```
symbols = ['!', '#', '$', '%', '&', '(', ')', '*', '+']
```

```
print("Welcome to the PyPassword Generator!")
```

```
nr_letters = int(input("How many letters would you like in your password?\n"))
```

```
nr_symbols = int(input(f"How many symbols would you like?\n"))
```

```
nr_numbers = int(input(f"How many numbers would you like?\n"))
```



```
# Easy Level - Order not randomised:  
# e.g. 4 letter, 2 symbol, 2 number = JduE&!91
```

```
easy_password = ""  
for i in range(0, nr_letters):  
    easy_password += random.choice(letters)  
  
for j in range(0, nr_symbols):  
    easy_password += random.choice(symbols)  
  
for k in range(0, nr_numbers):  
    easy_password += random.choice(numbers)  
print("Easy Password:", easy_password)
```



```
# Hard Level - Order of characters randomised:  
# e.g. 4 letter, 2 symbol, 2 number = g^2jk8&P  
password_list = []  
for i in range(0, nr_letters):  
    password_list.append(random.choice(letters))  
  
for j in range(0, nr_symbols):  
    password_list.append(random.choice(symbols))  
  
for k in range(0, nr_numbers):  
    password_list.append(random.choice(numbers))  
  
random.shuffle(password_list)  
hard_password = ""  
for char in password_list:  
    hard_password += char  
  
print("Hard Password", hard_password)  
print("Easy Password:", easy_password)
```



Output:

How many letters would you like *in* your password?

4

How many symbols would you like?

3

How many numbers would you like?

2

Easy Password: ncgX)+#38

Hard Password:)+p9aR%1p

THANK
YOU