

tion

```
# Ensure at least one character type is selected
if chars == "":
    print("Error: Please choose at least one character type")
```

```
return password
```

```
def check_password_strength(password):
    has_lowercase = False
    has_uppercase = Falseimport random
```

```
import string
```

```
def generate_password(length=12, uppercase=True, lowercase=True, digits=True,
special_chars=True):
```

```
# Define character sets based on options
```

```
chars = ""
```

```
if uppercase:
```

```
    chars += string.ascii_uppercase
```

```
if lowercase:
```

```
    chars += string.ascii_lowercase
```

```
if digits:
```

```
    chars += string.digits
```

```
if special_chars:
```

```
    chars += string.punctua
```

```
has_digit = False
```

```
has_special_char = False
```

```
for c in password:
```

```
    if c.islower():
```

```
        has_lowercase = True
```

```
    elif c.isupper():
```

```
        has_uppercase = True
```

```
    elif c.isdigit():
```

```
        has_digit = True
```

```
    elif c in string.punctuation:
```

```
        has_special_char = True
```

```
if has_lowercase and has_uppercase and has_digit and has_special_char:
```

```
    return "strong"
```

```
elif len(password) >= 8:
```

```
    return "medium"
```

```
else:
```

```
    return "weak"
```

```
def main():
```

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

```

# Get user preferences
length = int(input("Enter the desired password length: "))
uppercase_input = input("Include uppercase letters? (yes/no): ")
if uppercase_input == "yes":
    uppercase = uppercase_input.strip().lower()
else:
    uppercase = False

lowercase_input = input("Include lowercase letters? (yes/no): ")
if lowercase_input == "yes":
    lowercase = lowercase_input.strip().lower()
else:
    lowercase = False

digits_input = input("Include digits? (yes/no): ")
if digits_input == "yes":
    digits = digits_input.strip().lower()
else:
    digits = False

special_chars_input = input("Include special characters? (yes/no): ")
if special_chars_input == "yes":
    special_chars = special_chars_input.strip().lower()
else:
    special_chars = False

try:
    password = generate_password(length, uppercase, lowercase, digits, special_chars)
    print("Generated Password:", password)
    strength = check_password_strength(password)
    print("Password Strength:", strength)
except ValueError as e:
    print(f"Error: {e}")

if __name__ == "__main__":
    main()

```