

#### 4. Usage of ``random`` & ``string`` module:

- Write a function called ``generate_password(length)`` that uses the ``random`` module to generate a random password of the specified length. The password should contain a mix of lowercase letters, uppercase letters, digits, and special characters. Implement additional complexity requirements such as enforcing a minimum length, ensuring a specific number of each character type, and avoiding common password patterns.
- Test the function with different password length requirements and analyze the generated passwords for security.

Note:

``string`` module contains these string variables: **`ascii_lowercase`**, **`ascii_uppercase`**, **`digits`**, **`punctuation`**

``random`` module contains some methods that you can use to choose some elements between string characters. **`choices`**

It also has **`shuffle`** method to shuffle the list of characters.