Creating a simple web API for generating unique login details can be achieved using various technologies. In this example, we'll build a RESTful API using Python and the Flask framework. Flask is a lightweight and easy-to-use web framework for Python.

**Prerequisites:**

* Python installed on your system (Python 3.6 or later)
* Flask library installed (**pip install Flask**)

Here's a step-by-step guide to creating the API:

**1. Create a New Directory:** Create a new directory for your project.

**2. Create a Python File:** Inside the project directory, create a Python file (e.g., **app.py**) to write your API code.

**3. Write the API Code:** Open **app.py** in a text editor and write the following code:

pythonCopy code

from flask import Flask, jsonify import random import string app = Flask(\_\_name\_\_) # Function to generate a random username def generate\_username(): username = ''.join(random.choice(string.ascii\_letters) for \_ in range(6)) return username # Function to generate a random password def generate\_password(): password = ''.join(random.choice(string.ascii\_letters + string.digits) for \_ in range(8)) return password # API route to generate login details @app.route('/generate-login-details', methods=['GET']) def generate\_login\_details(): username = generate\_username() password = generate\_password() login\_details = { 'username': username, 'password': password } return jsonify(login\_details) if \_\_name\_\_ == '\_\_main\_\_': app.run(debug=True)

This code sets up a Flask web application with a single API endpoint **/generate-login-details** that, when accessed, generates a random username and password and returns them as JSON.

**4. Run the Flask App:** Open your terminal, navigate to the project directory, and run the Flask app:

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python app.py

The app should start, and you'll see output indicating that the server is running.

**5. Access the API:** You can now access the API by opening a web browser or using a tool like **curl** or Postman. Open your browser and go to:

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http://127.0.0.1:5000/generate-login-details

You should receive a JSON response with the generated login details, something like:

jsonCopy code

{ "username": "AbCdEf", "password": "xYz12345" }

**6. Customize and Deploy:** You can further customize this API by adding features like input validation, error handling, or integrating it into a larger application. When you're ready, you can deploy this Flask app to a production server to make it accessible on the web.

Remember to follow best practices for security when handling login details, such as using secure connections (HTTPS) and properly hashing passwords for storage.

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