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import random
import string
import secrets
from flask import Flask, render_template, request
app = Flask(__name__)
@app.route('/')
def index():
  return render_template('index.html')
@app.route('/generate', methods=['POST'])
def generate():
  try:
    length = int(request.form['length'])
    uppercase = bool(request.form['uppercase'])
    lowercase = bool(request.form['lowercase'])
    numbers = bool(request.form['numbers'])
    symbols = bool(request.form['symbols'])
    if length < 1:
      return render_template('index.html', error="Password length must be at least 1 character.")
    password = generate_password(length, uppercase, lowercase, numbers, symbols)
    return render_template('index.html', password=password)
  except ValueError:
    return render_template('index.html', error="Invalid input. Please enter a valid password
length.")
def generate_password(length, uppercase, lowercase, numbers, symbols):
  characters = []
```

```
if uppercase:
    characters.extend(secrets.choice(string.ascii_uppercase) for _ in range(length // 4))
  if lowercase:
    characters.extend(secrets.choice(string.ascii_lowercase) for _ in range(length // 4))
  if numbers:
    characters.extend(secrets.choice(string.digits) for _ in range(length // 4))
  if symbols:
    characters.extend(secrets.choice(string.punctuation) for _ in range(length // 4))
  while len(characters) < length:
    characters.append(secrets.choice(string.ascii_letters + string.digits + string.punctuation))
  random.shuffle(characters)
  return ".join(characters)
if __name__ == '__main__':
  app.run()
```