Flask web evaluation for QtRvSim

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A little bit about Flask

Flask

Flask is a micro web framework written in Python. It provides a simple way to create web applications.

As opposed to Django, Flask is not an all-inclusive framework. It is designed to be simple and easy to use.

To start creating a web application, the only thing you need to do is to install Flask and start writing your Python code.

To run the local webserver, the command `flask run` is used.

```python
from flask import Flask

app = Flask(__name__)

@app.route("/")
def hello():
        return "<p>Hello, World!</p>"
```

Loading template files

We can utilize Flask to load HTML templates, instead of writing all of the HTML code in the app.py file.

We can also pass variables to the template, and detect which HTTP method was used to access the page.

```python
from flask import Flask
from flask import render_template
from flask import request

app = Flask(__name__)
app.secret_key = 'e4ed89f02f3aa07a4309dbfff'

@app.route("/")
def index():
    return render_template('index.html')

@app.route("/register", methods=['GET', 'POST'])
def register():
    if request.method == 'POST':
        return "Registered with username: " + \
            request.form['username'] + " and password: " + \
            request.form['password']
    return render_template('register.html')
```

Jinja2 templating

This is still not ideal, now we need to create a complete HTML page for every route.

We will now use the Jinja2 templating engine to create a base template, and then extend it for every route.

We can also add static files, such as CSS stylesheets, or images.

```html
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="utf-8">
  <meta name="viewport" content="width=device-width, initial-sca
  <link rel="icon" href="{{ url_for('static', filename='favicon.
  <title>{% block title %}{% endblock title %}</title>
  <link rel="stylesheet" type="text/css" href="{{ url_for('stati
</head>
<body>
  <main class="main-content">
    {% block content %}{% endblock content %}
  </main>
</body>
</html>
```

```
{% extends "base.html" %}

{% block title %}
The Register Page
{% endblock title %}

{% block content %}
  <h2>Register</h2>
  <form method="POST" action="/register">
    <input type="text" name="username" placeholder="Username">
    <input type="password" name="password" placeholder="Pass">
    <input type="submit" value="Register">
  </form>
{% endblock content %}
```