Tech Shadow

A project by:

Sean Cunninham

Keiler Collier

Anthony Konas

Ashley Hart

Project Description

Purpose

Tech Shadow is a platform that connects aspiring tech professionals with real-world shadowing opportunities.

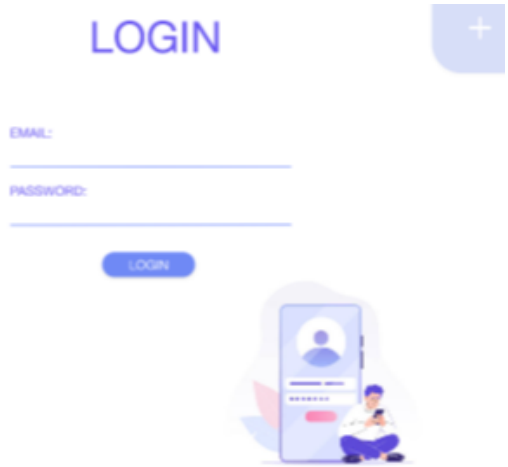
It allows users to explore diverse roles in the tech industry, gain valuable insights, and connect with mentors offering a firsthand **“day in the life”** experience.

- Explore a wide range of tech roles across various fields and specialties.
- Connect with experienced professionals who share their daily workflows.
- Gain practical insights to make informed career decisions.

Major Features

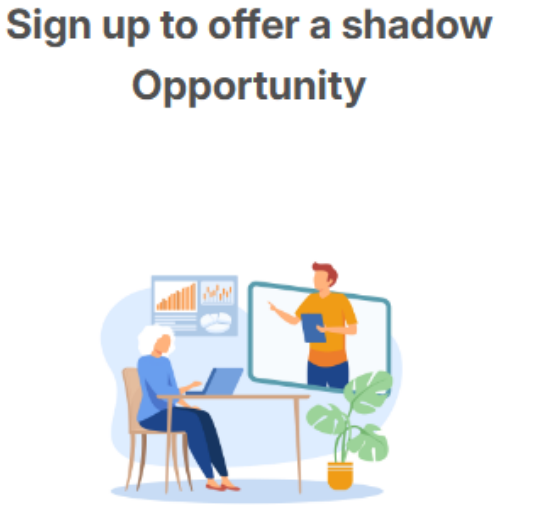
Sign up (Account creation)

The user will be able to sign up and make an account



Create a Shadow

The user will be able to create a shadow opportunity that will be posted to the Shadow Opportunities page



Shadow Opportunities

The user will be able to search shadows and send messages

Design Challenges

Connecting Front-End and Back-End

Team Organization

Different time zones

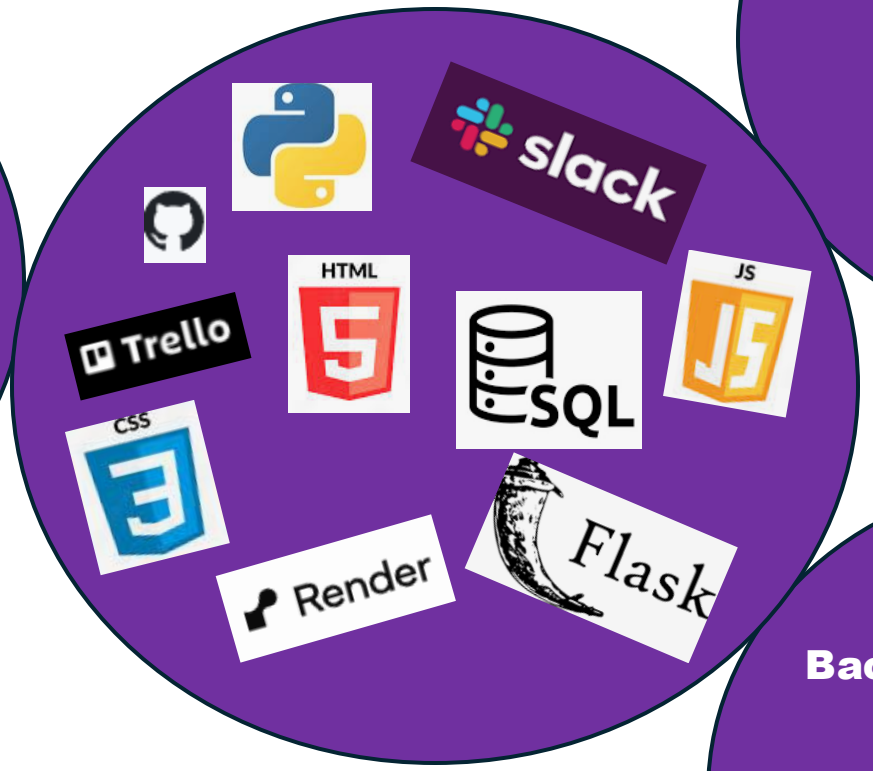
Different levels of knowledge with design tools

Tools

Tools

Project Management

1. Github
2. Trello
3. Slack



Frontend Development

1. HTML/CSS
2. Javascript

Backend Development

1. Python
2. Flask
3. PostgreSQL
4. pytest

Project Management

GitHub

Pros:

- Industry standard for version control.
- Simplifies collaboration with team members.
- Command-line interface (CLI) is intuitive and easy to use.

Cons:

- Steep learning curve for newcomers navigating the interface.

Trello

Pros:

- Simplifies collaboration within teams.
- User-friendly interface that's easy to navigate.

Cons:

- Adds an additional platform to manage for project management tasks.

Slack

Pros:

- Widely used and recognized communication platform.
- Facilitates quick sharing of links and documents.
- Enables seamless communication with team members.

Cons:

- Easy to forget to check consistently.
- Paid version retains chat history longer than the free version.

Front End Design

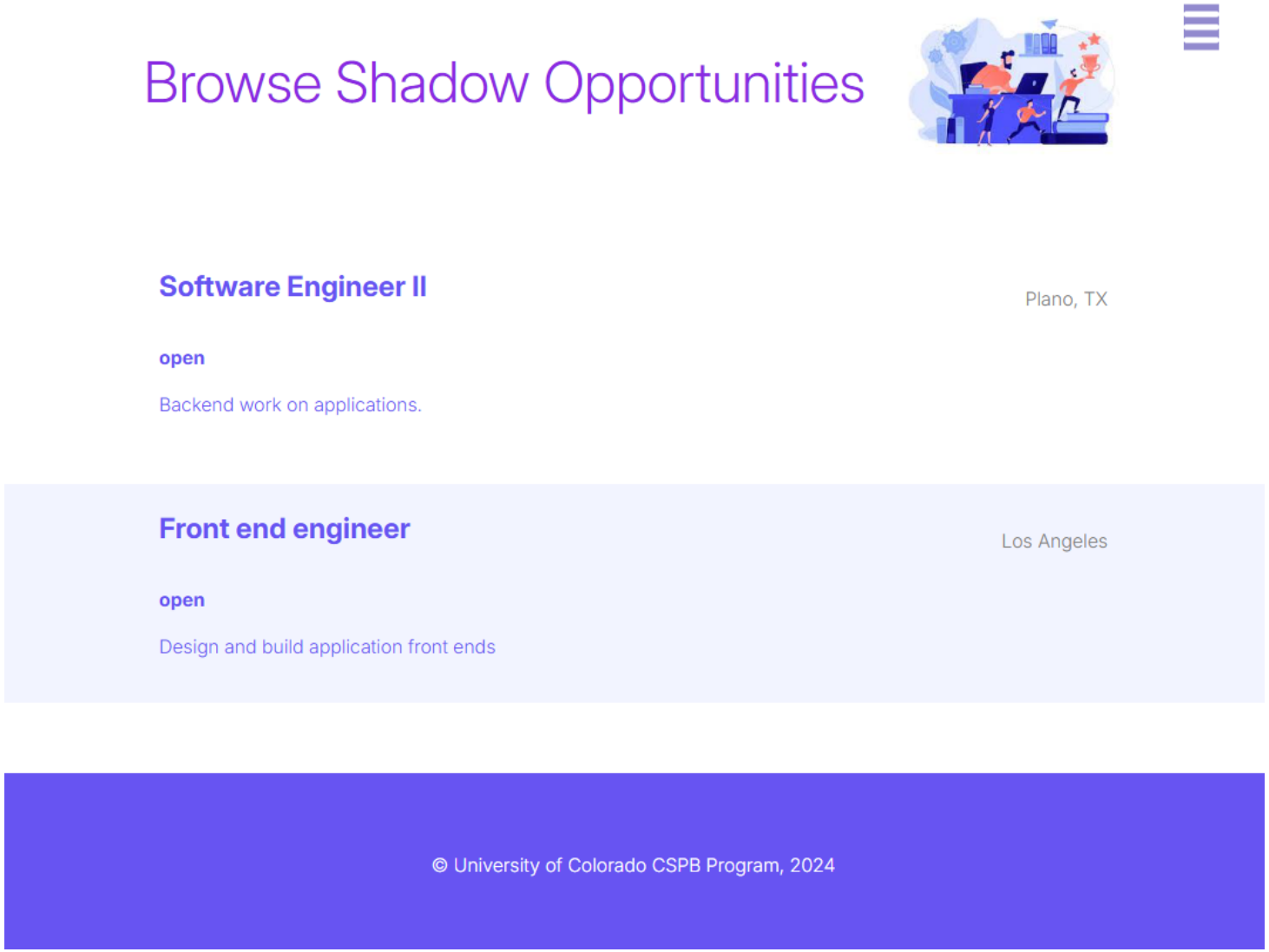
HTML/CSS/JS

Pros:

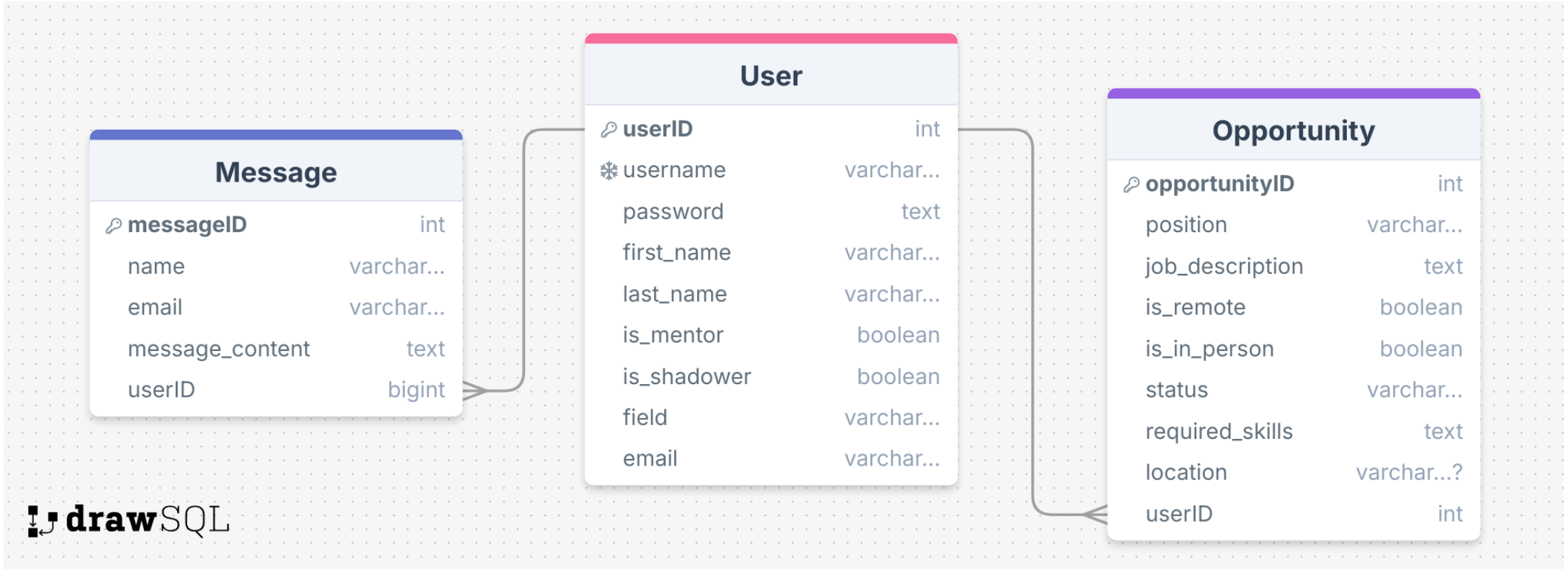
- Industry standard for web development.
- Universally used and supported across the web.
- Extensive documentation and community support.

Cons:

- Browser compatibility issues can require additional effort to resolve.



Database Design



Back End Design

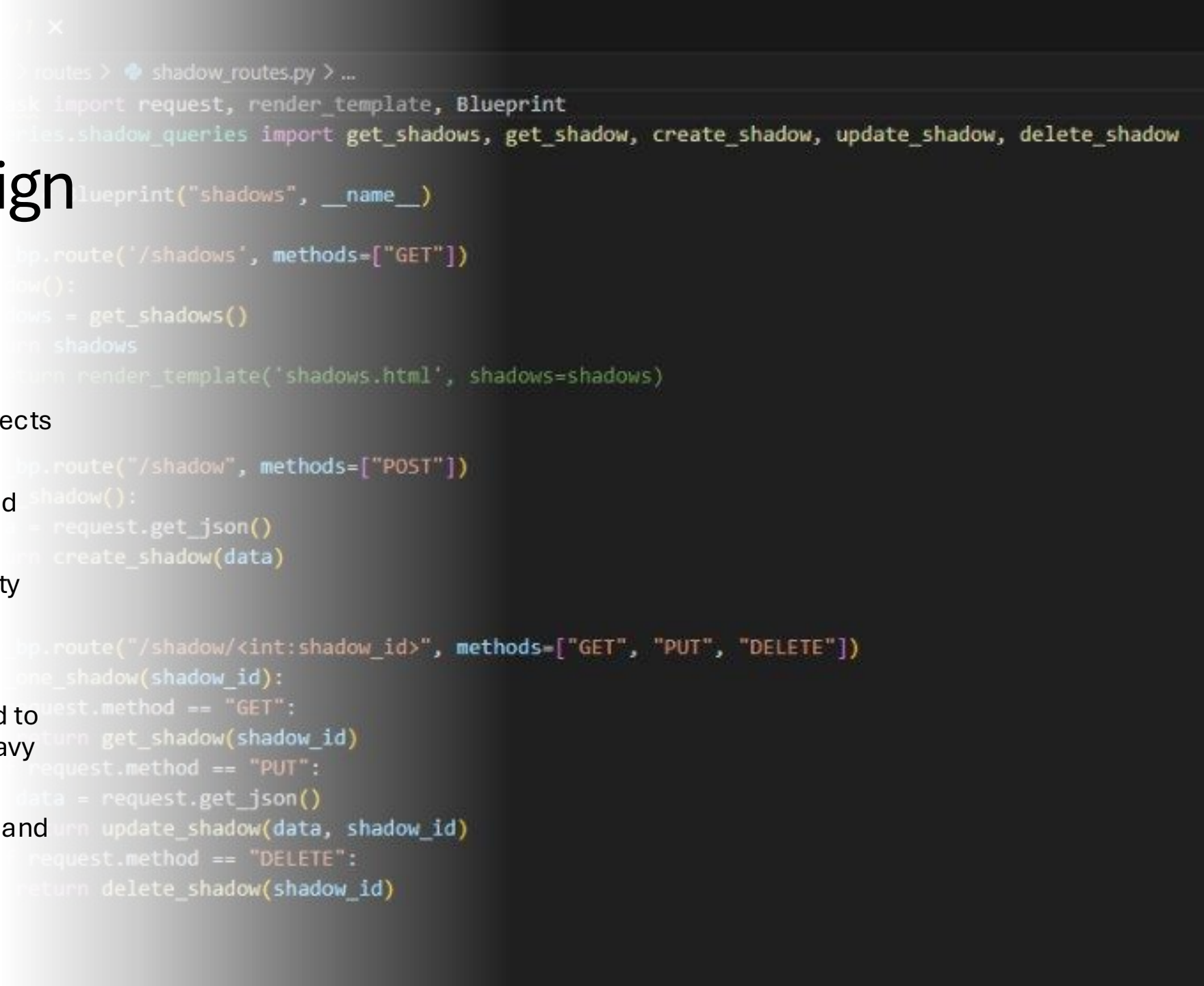
Python/Flask

Pros:

- Easy to build and organize projects with its modular design.
- Based on Python, a popular and beginner-friendly language.
- Plenty of guides and community support available.

Cons:

- Slower performance compared to some other frameworks for heavy tasks.
- Requires learning both Python and Flask basics.



Back End Design

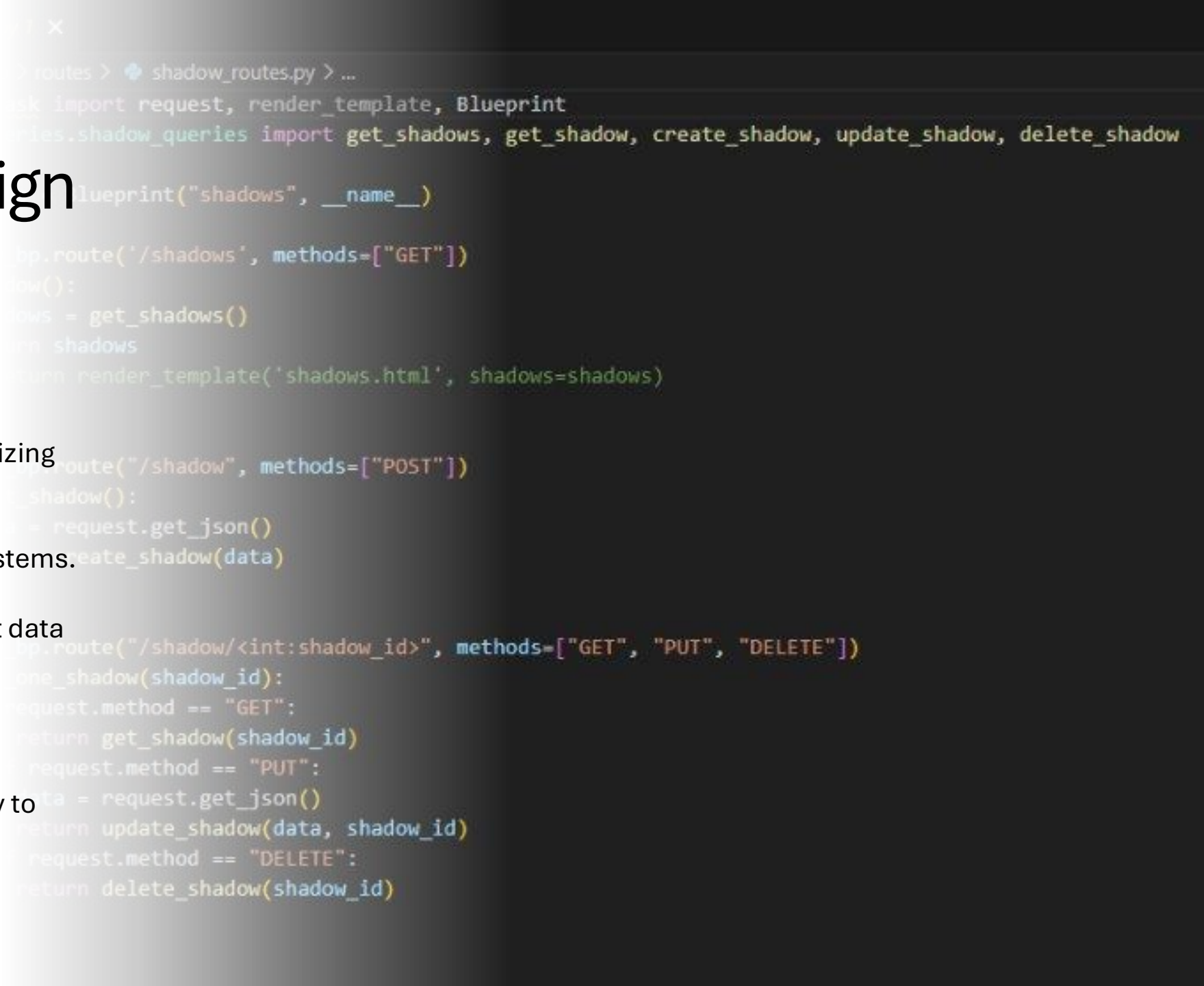
SQL

Pros:

- Great for managing and organizing data in relational databases.
- Works with most database systems.
- Designed for fast and efficient data handling.

Cons:

- Complex queries can be tricky to learn.



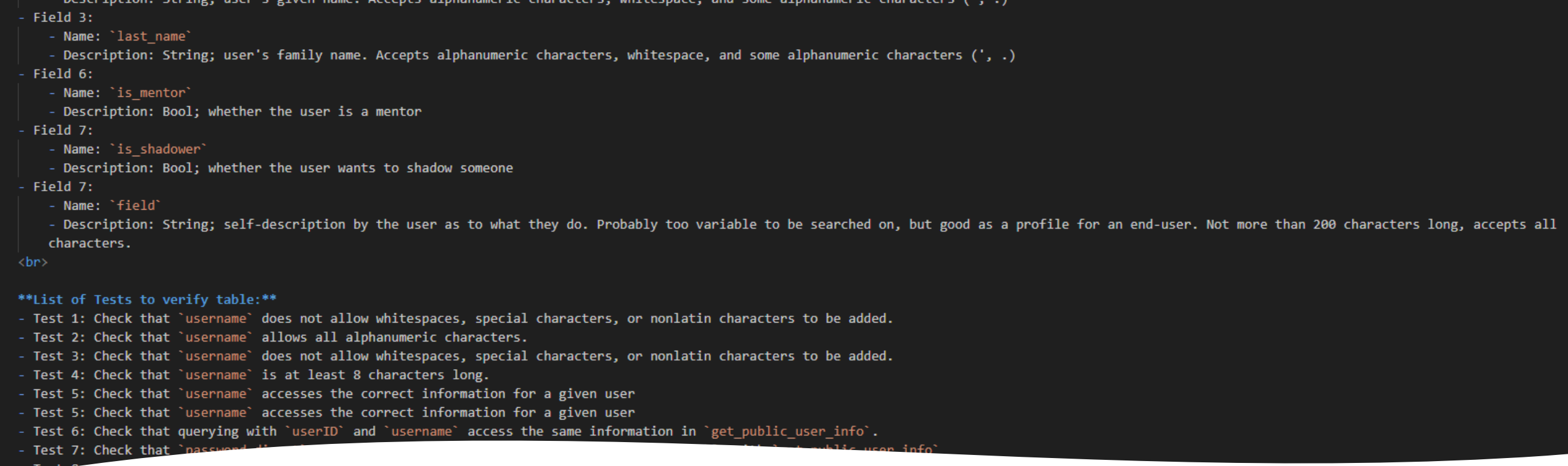
Testing

Added tests for each query route

```
def test_delete_user(test_client):
    response = test_client.delete("/user/1")
    data = response.get_json()
    user_id = 1
    assert response.status_code == 200
    assert data["message"] == f"User {user_id} deleted"
    with pytest.raises(RuntimeError, match="User not fo
        get_user(user_id)
```

```
def test_get_shadow(test_client):
    shadow_id = test_client.get("/shadow/1")
    shadow =shadow_id.get_json()
    assert shadow_id.status_code == 200

    assert shadow["opportunityID"] == 1
    assert "position" in shadow
    assert "job_description" in shadow
    assert "is_remote" in shadow
    assert "location" in shadow
```



Documentation

- **Manually edited docstrings** to provide detailed information
- **In-line comments** for planned future features
- **Page_testing.md**: Instructions for testing page functionality
- **Sql_testing.md**: Guidelines for testing SQL queries
- **Readme.md**: Project overview and setup instructions
- **Weekly_status.md**: Weekly progress and updates

Tech Shadow

Who are we?

Tech Shadow is a platform connecting aspiring tech professionals with real-world shadowing opportunities. Users can browse roles in the tech industry, gain insights, and connect with mentors offering a “day in the life” experience.

- Discover diverse tech roles across various fields and specialties
- Connect with experienced professionals willing to share their daily workflows
- Gain hands-on insight to guide your career decisions

Project Demonstration

Planned Enhancements and Aspirational Features

User login system

User profiles with CRUD (Create, Read, Update, Delete) capabilities

Admin section for managing messages

Shadow filtering functionality

Clickable shadows for contacting mentors directly

Thank you!