

# Documentation for a Flask and MySQL Social Network Website

## **Overview:**

This project is a web application built using Flask and MySQL. The website is a social network where users can create an account, create news, and view news created by other users. The website also features a simple frontend for easy navigation.

## **Features:**

User account creation and authentication

News creation and viewing

Simple frontend for easy navigation

ORM migrations and SQLAlchemy to work with the database

Unit tests for each endpoint using Postman

Continuous integration with Travis CI

Project stored on GitHub

## **Technologies:**

Python 3.9.7

Flask

MySQL

SQLAlchemy

ORM migrations

Postman

Travis CI

Git

## Methodology:

The project was developed using Python 3.x and Flask, a micro web development framework that allows for quick and easy website development. MySQL was used for database management, with SQLAlchemy and ORM migrations being utilized to manage database changes. The project was thoroughly tested using Postman, a popular testing suite for API endpoints. Unit tests were created for each endpoint to ensure proper functionality and prevent potential bugs.

To extend the functionality of the website, additional features could be implemented such as messaging, user profile customization, and improved search capabilities. Additional security measures could also be implemented to protect user data and prevent unauthorized access.

## Installation:

Install Python 3.9.7 on your local machine.

Install Flask by running the following command: `pip install flask`

Install MySQL and create a database for the project.

Install SQLAlchemy by running the following command: `pip install sqlalchemy`

Install the ORM migrations library by running the following command: `pip install flask-migrate`

Clone the project from GitHub.

Set up the database by running the following commands:

```
flask db init
```

```
flask db migrate
```

```
flask db upgrade
```

Run the project by running the following command: `flask run`

## Usage:

Navigate to the website using your preferred web browser.

Create an account by clicking on the "Register" button and filling out the registration form.

Log in using your credentials.

Create a news by clicking on the "Create News" button and filling out the news form.

View news created by other users by clicking on the "View News" button.

### **Testing:**

Install Postman on your local machine.

Import the provided Postman collection and environment files.

Run the collection to test each endpoint.

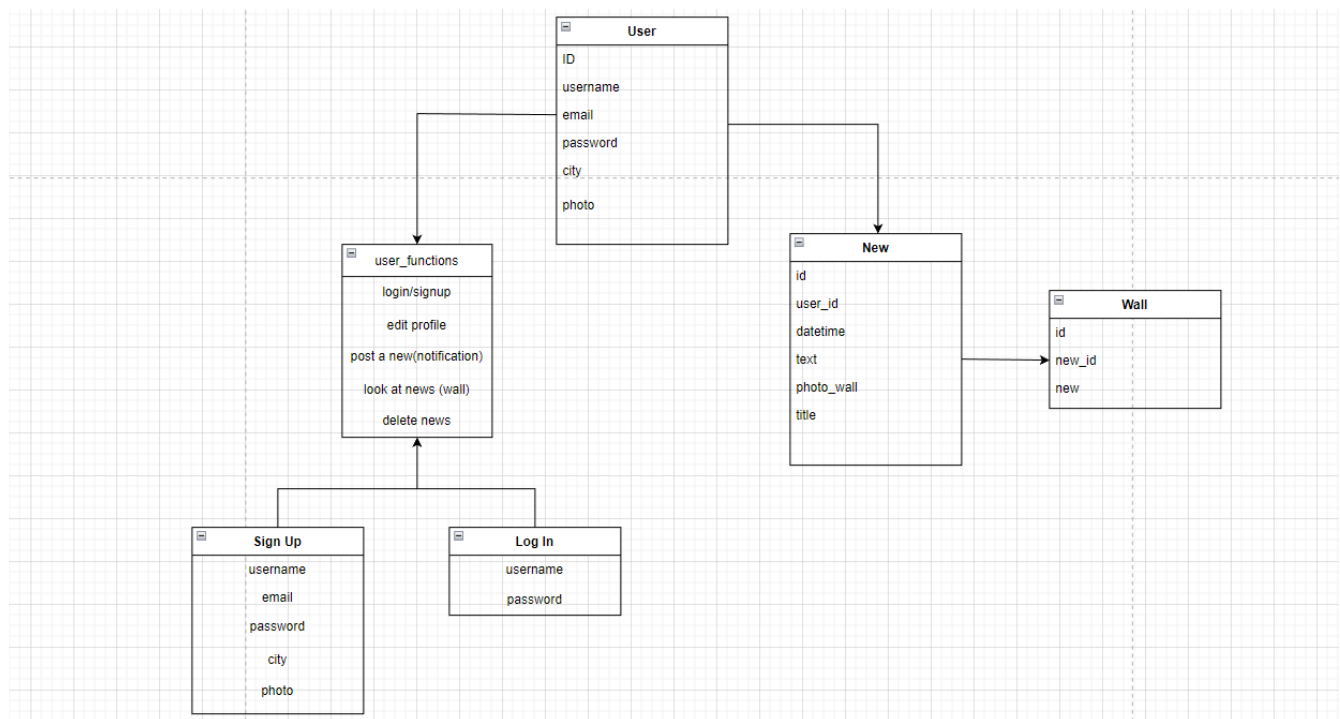
Verify that each test passes.

### **Continuous Integration:**

The project is set up with Travis CI for continuous integration.

Each time a new commit is pushed to GitHub, Travis CI runs the unit tests to verify that everything is working correctly.

If the unit tests pass, the code is deployed to the live server.



Scheme 1, structure of my project

## Conclusion:

This project is a social network website built using Flask and MySQL. The website features user account creation and authentication, news creation and viewing, and a simple frontend for easy navigation. The project is thoroughly tested using Postman and Travis CI for continuous integration. The code is stored on GitHub for easy collaboration and version control.