Author

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Description

An application where the influencers and sponsors can interact, collaborate and get the activities done. Admin overviews all the users and their activities and flag the users or activities (campaigns) that are inappropriate.

Technologies used

1. **Flask**: This provides the core framework for building the web application. It is a microweb framework which provides tools and libraries to simplify the development of web apps.
2. **Jinja2**: It is used for rendering dynamic HTML templates with placeholders that allow inserting data from the backend into the frontend.
3. **Flask-SQLAlchemy**: This is used to simplify the interaction with the SQLite database by providing an ORM for defining database models and querying data using Python classes.
4. **Werkzeug**: This provides secure password hashing for storing passwords in the database and checking their validity during login.
5. **JAVASCRIPT**: It is used in HTML files in <script> tags for various functionalities to work properly and efficiently.
6. **Bootstrap:** Bootstrap is a popular open-source CSS framework that provides pre-designed HTML, CSS, and JavaScript components for building responsive and mobile-first web applications. It simplifies the process of creating a consistent and visually appealing user interface by offering a set of customizable and reusable UI components.
7. **CSS:** CSS is a fundamental technology used for styling web pages and defining the presentation of HTML documents. It allows developers to control the layout, colors, fonts, and spacing of elements on a webpage.

DB Schema Design

My database consists of 4 different tables whose structures are defined as follows:

1.

```
CREATE TABLE "ad_request" (
        id INTEGER NOT NULL,
```

```
    campaign_id INTEGER NOT NULL,
    influencer_id INTEGER NOT NULL,
    messages TEXT NOT NULL,
    requirements VARCHAR(50) NOT NULL,
    payment_amount FLOAT NOT NULL,
    status VARCHAR(15) NOT NULL,
    PRIMARY KEY (id),
    FOREIGN KEY(campaign_id) REFERENCES campaign (id),
    FOREIGN KEY(influencer_id) REFERENCES user (id)
);
```

2.

```
CREATE TABLE campaign (
    id INTEGER NOT NULL,
    name VARCHAR(100) NOT NULL,
    description TEXT NOT NULL,
    start_date DATETIME NOT NULL,
    end_date DATETIME NOT NULL,
    budget FLOAT NOT NULL,
    visibility VARCHAR(10) NOT NULL,
    goals TEXT NOT NULL,
    sponsor_id INTEGER NOT NULL,
    flagged BOOLEAN,
    PRIMARY KEY (id),
    FOREIGN KEY(sponsor_id) REFERENCES user (id)
);
```

3.

```
CREATE TABLE "influencer_profile" (
user_id INTEGER NOT NULL,
category VARCHAR(100),
niche VARCHAR(100),
reach VARCHAR(25),
PRIMARY KEY (user_id),
FOREIGN KEY(user_id) REFERENCES user (id)
);
```

4.

```
CREATE TABLE "user" (
    id INTEGER NOT NULL,
    username VARCHAR(20) NOT NULL,
    email VARCHAR(120) NOT NULL,
    password VARCHAR(60) NOT NULL,
    role VARCHAR(20) NOT NULL,
    flagged BOOLEAN,
    PRIMARY KEY (id),
    UNIQUE (email),
    UNIQUE (username)
);
CREATE UNIQUE INDEX ix_user_email ON user (email);
CREATE UNIQUE INDEX ix_user_username ON user (username);
```

API Design

Used flask API that supports login and crud operations to database.

Architecture and Features

The project follows Flask's framework principles, with controllers situated in the main script for route handling. Templates, utilizing Jinja2, are stored in the "templates" directory, dictating HTML layout and dynamic data placeholders. Models, constructed using Flask-SQLAlchemy, define database structure as classes. Static assets like CSS are stored in the "static" directory. This architecture ensures a clear organization, simplifying maintenance and scaling while aligning with Flask's design philosophy.

Project: Secure user registration/login (Werkzeug, Flask-Login), Flask-SQLAlchemy DB, dynamic Jinja2 templates, user roles, admin routes, organized static assets - cohesive, efficient Flask app.

Video

https://drive.google.com/file/d/1xFqx1nzk-Ue_PbHNCXC1hh6hf8TFUs68/view?usp=sharing