

Project Report for Final Project
Modern Application Development - I

Author

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Introduction

My name is Tejas. I am a 3rd-year college student with a keen interest in programming and data science. Working on this project has been a rewarding experience, filled with both challenges and learning opportunities.

Project Description

This project is a web application designed to facilitate the management of influencer and sponsor interactions, campaign creation, and advertisement requests. The platform uses Flask as the web framework, SQLAlchemy for database management, Jinja2 for templating, and Bootstrap for responsive UI design.

Key Features:

- Campaign creation, editing, and deletion.
- Influencer and sponsor signup and management.
- Request handling for campaign sponsorship.
- Flagging and unflagging users.

Technologies Used

- **Flask:** Used for building the web application.
- **Flask-SQLAlchemy:** Extension for Flask to handle database operations.
- **Jinja2:** Template engine for rendering HTML pages.
- **CSS:** Used for design.
- **Bootstrap:** Used for responsive design.
- **Datetime:** Python module used for date operations.
- **Matplotlib:** User for Graphing
- **Uuid:** used to generate unique identifiers for graph images

Database Schema:

1. User:

- Attributes: id, Email, Name, Username, Password, Bio, Role, flagged
- Relationships: **Sponsor** (One-to-One), **Influencer** (One-to-One)

2. Sponsor:

- Attributes: id, Industry, Budget, user_id
- Relationships: **User** (One-to-One), **Campaign** (One-to-Many)

3. Influencer:

- Attributes: id, Category, Niche, Reach, user_id
- Relationships: **User** (One-to-One), **AdRequest** (One-to-Many), **InfluencerAdRequest** (One-to-Many)

4. Campaign:

- Attributes: id, name, description, start_date, end_date, budget, goals, category, visibility, sponsor_id, flagged
- Relationships: **Sponsor** (Many-to-One), **AdRequest** (One-to-Many)

5. AdRequest:

- Attributes: id, camp_id, influencer_id, requirements, payment_amount, messages, status, flagged
- Relationships: **Influencer** (Many-to-One), **Campaign** (Many-to-One)

6. InfluencerAdRequest:

- Attributes: id, sponsor_id, influencer_id, campaign_id, messages, status, flagged
- Relationships: **Influencer** (Many-to-One), **Sponsor** (Many-to-One)

Routes:

Admin Routes:

- **/admin**: Admin Login
- **/admin/dashboard**: Admin Dashboard
- **/admin/users**: Manage Users
- **/admin/users/flag/<int:id>**: Flag User
- **/admin/users/delete/<int:user_id>**: Delete User
- **/admin/users/update/<int:id>**: Update User
- **/admin/logout**: Admin Logout

Sponsor Routes

- **/sponsor**: Sponsor Signup
- **/dashboard-spo/<int:id>**: Sponsor Dashboard
- **/user/spo_update/<int:id>**: Sponsor Profile Update
- **/spo_request/<int:id>**: Check Sponsor Requests
- **/sponsor/accept/<int:id>/<int:user_id>**: Accept Sponsor Request
- **/sponsor/reject/<int:id>/<int:user_id>**: Reject Sponsor Request

Influencer Routes

- **/influencer**: Influencer Signup
- **/dashboard-inf/<int:id>**: Influencer Dashboard
- **/inf_update/<int:id>**: Influencer Profile Update

- `/add_req/<int:id>`: Add Advertisement Request for Influencer
- `/accept_ad_request/<int:ad_request_id>/<int:id>`: Accept Advertisement Request
- `/reject_ad_request/<int:ad_request_id>/<int:id>`: Reject Advertisement Request
- `/negotiate_ad_request/<int:ad_request_id>/<int:id>`: Negotiate Advertisement Request
- `/search_inf/<int:id>`: Search Influencer
- `/send_req/<int:id>/<int:inf_id>`: Send Request to Influencer

Campaign Routes

- `/create_camp/<int:id>`: Create Campaign
- `/update_camp/<int:id>/<int:user_id>`: Update Campaign
- `/my_campaigns/<int:id>`: My Campaigns
- `/del_camp/<int:id>/<int:user>`: Delete Campaign
- `/search_camp/<int:id>`: Search Campaign
- `/send_request/<int:id>/<int:camp_id>/<int:spo_id>`: Send Request to Sponsor

Ad Request Routes

- `/edit_adreq/<int:id>/<int:user_id>`: Edit Advertisement Request
- `/delete_adreq/<int:id>/<int:user_id>`: Delete Advertisement Request

Miscellaneous Routes

- `/`: Index
- `/user`: User Login
- `/logout/<int:id>`: Logout

Core Functionalities:

- User authentication and role management.
- Admin dashboard for overseeing platform activities.
- Sponsor dashboard for creating and managing campaigns.
- Influencer dashboard for viewing and applying to campaigns.
- Ad request management including sending, receiving, approving, and rejecting requests.
- Campaign and influencer search capabilities.

Link:

<https://youtu.be/oMvhajtcqk4?si=ulbMKY6sI6T2hXLa>