

## Project Overview

The Influencer Marketing Campaign Management System is designed to bridge the gap between sponsors and influencers. It allows sponsors to create and manage advertising campaigns, find suitable influencers, and handle ad requests. Influencers can register, view, accept, or reject ad requests, negotiate payments, and manage their dashboard. The system is equipped with user authentication, role-based access, and a robust backend for managing data.

## Technologies Used

1. Frontend: HTML, CSS (Bootstrap for styling)
2. Backend: Flask (Python web framework)
3. Database: SQLite (SQLAlchemy for ORM)
4. Authentication: Flask-Login for user sessions
5. **\*\*Form Handling\*\***: Flask-WTF for form handling and CSRF protection
6. Password Hashing: Flask-Bcrypt for secure password hashing
7. Asynchronous Tasks: Celery with Redis as a message broker
8. Deployment: Running on a local Flask development server

## System Components

1. User Management
  - Registration: Sponsors and Influencers can register with their respective forms.
  - Login/Logout: Secure login and logout functionality with session management.
  - Admin: Admin can manage users, campaigns, and ad requests from a dedicated dashboard.
2. Campaign Management (Sponsors)
  - Create Campaign: Sponsors can create new campaigns specifying details like name, description, budget, start and end dates, and visibility.
  - Edit Campaign: Sponsors can edit existing campaigns.
  - Delete Campaign: Sponsors can delete campaigns.
  - Dashboard: Sponsors can view and manage their campaigns from the dashboard.
3. Ad Request Management (Sponsors)
  - Create Ad Requests: Sponsors can create ad requests for their campaigns.
  - Edit Ad Requests: Sponsors can modify ad requests, including changing influencers, requirements, payment amounts, and status.
  - Delete Ad Requests: Sponsors can delete ad requests.
4. Ad Request Management (Influencers)
  - View Ad Requests: Influencers can view all ad requests from sponsors.
  - Accept/Reject Ad Requests: Influencers can accept or reject ad requests.
  - Negotiate Payment: Influencers can negotiate the payment amount for ad requests.

## 5. Admin Management

- User Management: Admin can view, flag, and approve sponsors.
- Campaign Management: Admin can flag campaigns.
- Ad Request Management: Admin can oversee ad requests.

## Key Functionalities and Workflows

### 1. Registration and Authentication

- Users can register as sponsors or influencers with detailed forms.
- Authentication is handled securely with password hashing.

### 2. Dashboard Access

- Role-based dashboards provide access to relevant functionalities for sponsors, influencers, and admins.

### 3. Campaign Lifecycle

- Sponsors create, update, and manage campaigns.
- Influencers can view public campaigns and interact with them through ad requests.

### 4. Ad Requests

- Creation, modification, and deletion of ad requests by sponsors.
- Viewing, acceptance, rejection, and negotiation of ad requests by influencers.

### 5. Admin Controls

- Administrative oversight for managing users, campaigns, and ad requests.
- Ability to flag and approve entities within the system.

## Implementation Challenges

1. CSRF Protection: Ensuring forms include CSRF tokens for security.
2. Date Handling: Managing date inputs and ensuring compatibility with SQLite.
3. Role-Based Access: Implementing secure access controls to restrict functionalities based on user roles.
4. Asynchronous Tasks: Integrating Celery and Redis for handling scheduled tasks and notifications.

## Future Enhancements

1. Daily Reminders Implementation: Complete the scheduled job for sending daily reminders to influencers.
2. Enhanced User Interface: Improve the UI/UX for a more intuitive experience.

3. Scalability: Consider migrating to a more scalable database system for production.
4. Additional Notification Channels: Implement SMS and Google Chat Webhooks for notifications.
5. Analytics Dashboard: Provide sponsors and influencers with insights and analytics on their campaigns and interactions.

## Conclusion

The Influencer Marketing Campaign Management System is a comprehensive solution for managing advertising campaigns and influencer collaborations. With robust user management, campaign and ad request handling, and role-based access, the system provides a solid foundation for further enhancements and scaling.

Video Link -

<https://drive.google.com/file/d/1b6Xr3RIknKg5glfwpx4PLPASNwNsBjDV/view?usp=sharing>