MODERN APPLICATION DEVELOPMENT 1

TEJEASHWAR DORAI   **21f2001466**

Influencer Engagement and Sponsorship Coordination Platform

The **Influencer Engagement and Sponsorship Coordination Platform** (IESCP) connects sponsors and influencers, facilitating sponsorship campaigns. The goal of the platform is to allow sponsors to advertise products/services through influencers, and in turn, offer influencers monetary benefits. Sponsors can create campaigns, send ad requests, and track engagement, while influencers can receive and negotiate ad requests based on their social media reach.

Problem Statement
The challenge is to develop a web-based platform that integrates three user roles—**Admin**, **Sponsor**, and **Influencer**—each with distinct functionalities. The platform should enable seamless interaction between sponsors and influencers for campaign management, ad requests, and negotiation processes, along with an admin overseeing all activities.

Mandatory Frameworks and Technologies
The project is built using the following tech stack:
- **Flask**: Python-based web framework for handling application logic.
- **Jinja2 Templates + Bootstrap**: For generating dynamic HTML pages and providing a responsive design.
- **SQLite**: A lightweight database for managing all users, campaigns, and ad requests.

Approach to Problem Solving
1. **Data Model Design**:
   - Created separate tables for users (Admin, Sponsor, Influencer), campaigns, and ad requests in SQLite. Each table contains necessary fields like budget, visibility (for campaigns), and status (for ad requests).
   - The relationship between **Sponsor** and **Influencer** is managed via **Ad Requests**, where each request links a campaign to an influencer.
2. **User Authentication & Role Differentiation**:
   - Different forms were used to differentiate between admin, sponsor, and influencer logins.
   - User roles determine access privileges and visibility across different sections of the platform.
3. **Campaign and Ad Request Lifecycle**:
   - Sponsors create campaigns with budgets and goals, which become containers for ad requests.
   - Influencers can view and manage these requests by accepting, or rejecting.
4. **Jinja2 and Bootstrap Integration**:
   - Leveraged Jinja2 to dynamically render HTML pages based on user roles and actions.
   - Bootstrap ensured a responsive and user-friendly design.

By integrating these functionalities within a Flask framework, we have built a scalable and modular platform to connect sponsors and influencers for mutually beneficial advertising campaigns.

ER Diagram
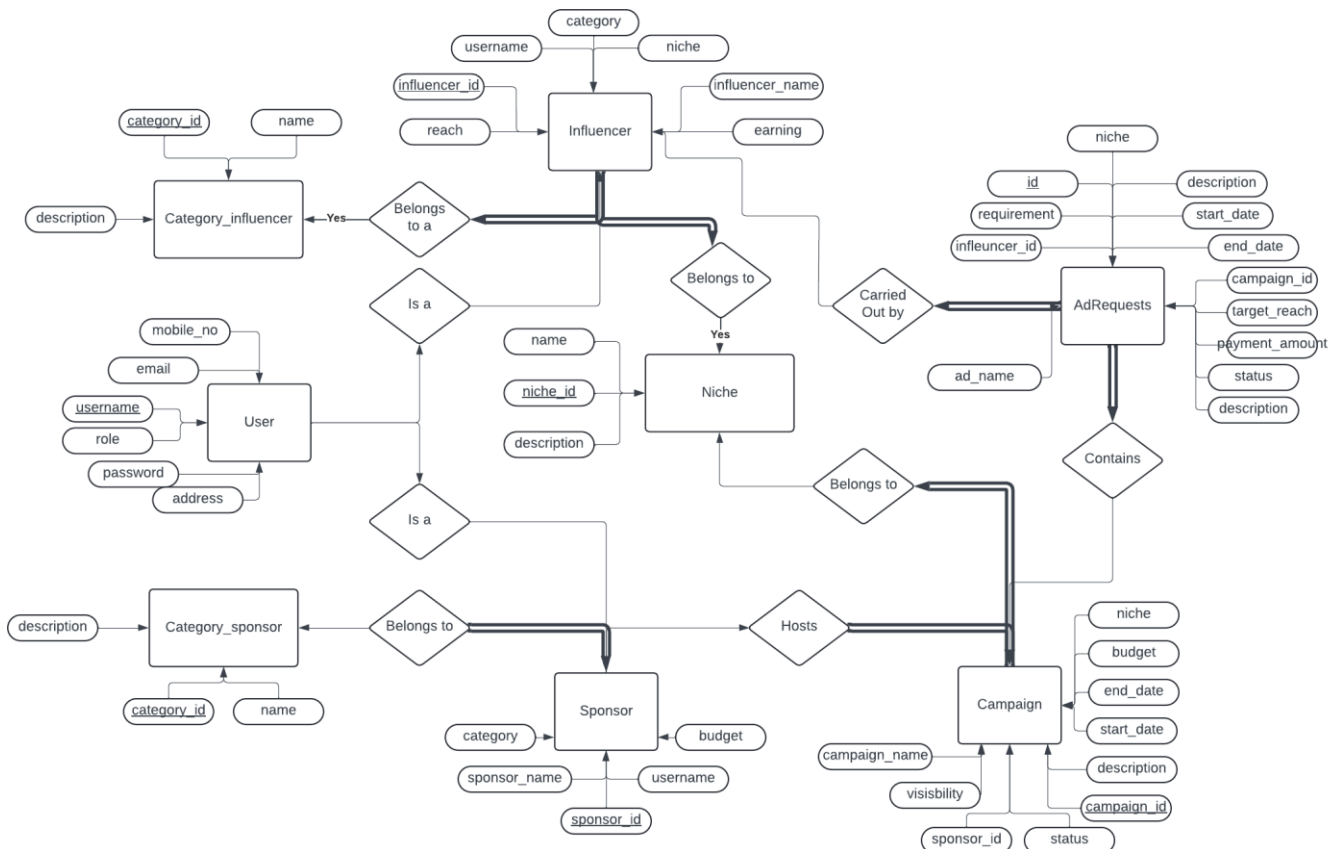
Implemented Functionalities:

1 Admin login and user login
- A login/register form with fields like username, password etc. for sponsor, influencer and admin login
- Created separate forms for each type of user
- Used a simple HTML form with username and password
- The app has a suitable model to store and differentiate all the types of user of the app.

2. Admin Dashboard - for the Admin
- The application has an admin dashboard which display all the relevant statistics of the application, e.g. active users, campaigns (public/private), ad requests and their status, sponsors/influencers etc.
- More statistics have been shown apart from the ones given above.

3. Campaign Management - for the sponsors
- Create a new campaign and categorize it into various niches.
- Update an existing campaign - e.g. start_date, end_date, budget and/or other fields
- Delete an existing campaign

4. Ad request Management - for the sponsors
- Create ad requests based on the goals on the campaign
- Edit an existing ad request - e.g. influencer_id, requirements, payment_amount, status
- Delete an existing ad request.

5. Search for influencers, public campaigns
- The sponsors should be able to search for relevant influencers based on their niche, reach, etc.
- The Influencers should be able to search for public campaigns based on their niche, relevance etc.

6. Take action on a particular ad request - for the Influencers
- Ability to view all the ad requests from all the campaigns
- Ability to accept/reject a particular ad request

VIDEO LINK: https://drive.google.com/file/d/1y1lYpFj5Ww-TztC7X50rWsycudNgx6bC/view?usp=sharing