This is a Project report for Influencer Engagement and Sponsorship Coordination Platform application. This report contains the problem statement, Application features, technologies used, database model, application architecture both on UI and REST API management.

PROJECT: IESCP

Modern Application Development - I

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Problem Statement

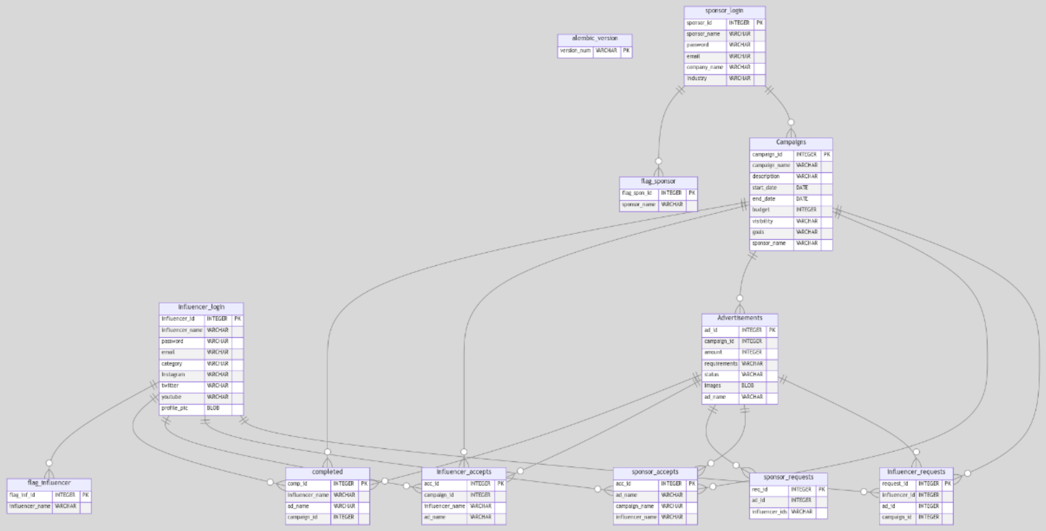
Develop an "Influencer Engagement and Sponsorship Coordination Platform" where Admins, Sponsors, and Influencers interact. Admins manage the platform, Sponsors create and manage advertising campaigns, and Influencers handle ad requests. The platform should be built using Flask, Jinja2, Bootstrap, and SQLite, and include core functionalities like user authentication, campaign management, ad request handling, and search features for public campaigns and influencers. Implement an admin dashboard for monitoring and statistics, with optional API resources and frontend validation.

Technologies used

S No	Technologies used	The purpose behind using any of these technologies
1	Flask	Flask framework – Blueprint, Session, Flash etc.
2	Flask-HTTPAuth	HTTP authentication with Flask routes
3	Flask-Markdown	Enable support for Markdown
4	Flask-Migrate	Database migrations for Flask applications using Alembic
5	Flask-RESTful	To quickly build REST APIs
6	Flask-SQLAlchemy	To enable flexible database operations
7	Flask-WTF	Simple integration of Flask and WTForms
8	Jinja2	Fast, expressive, extensible templating engine

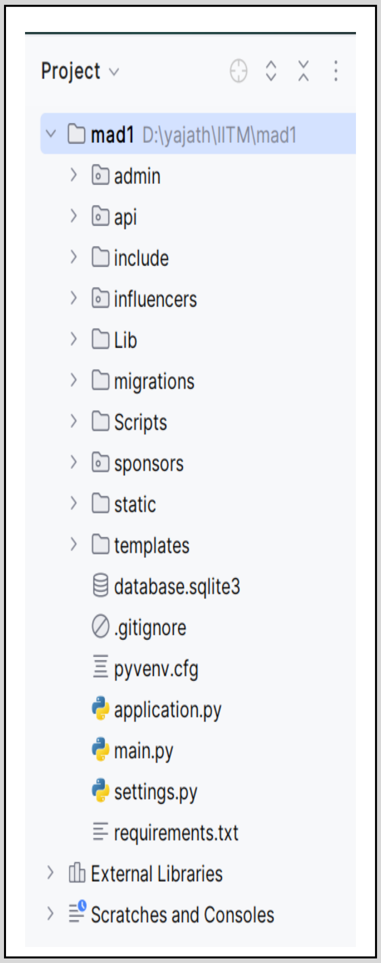
DB Schema Design

SQLITE3 is the database.
Tables: influencer_login, sponsor_login, Campaigns, Advertisements, completed, influencer_requests, sponsor_requests, influencer_accepts, sponsor_accepts, flag_influencer, flag_sponsor
Attached ER diagram for database model.

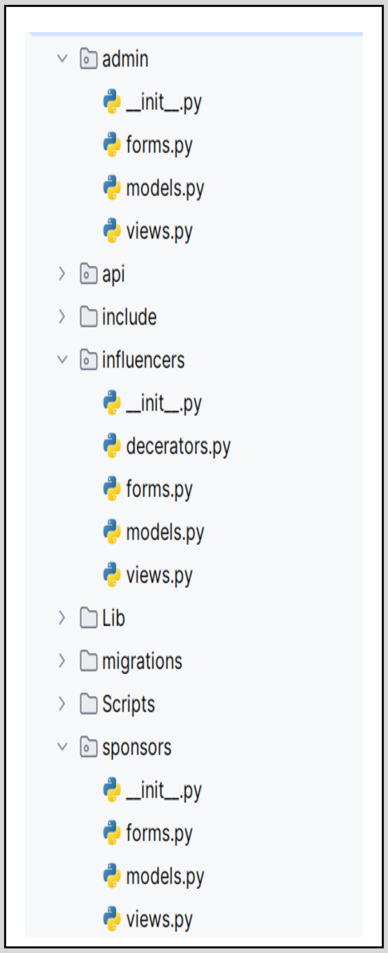


Architecture and Features

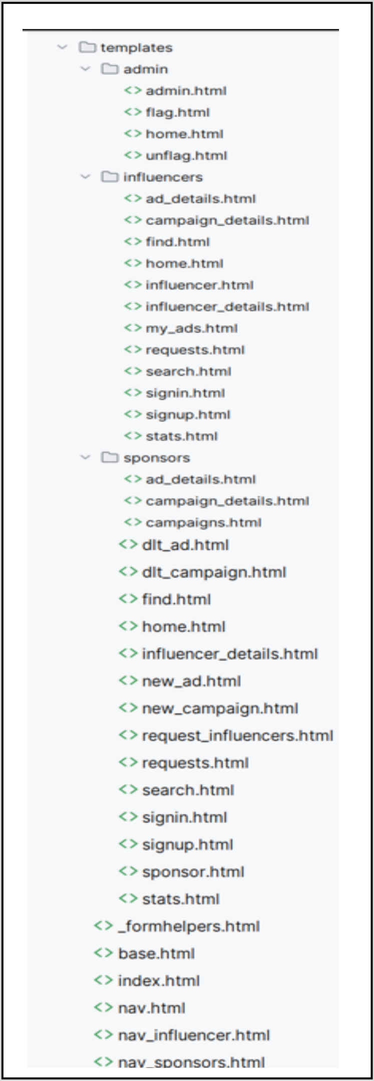
Application root file is Main.py All settings are defined in settings.py Create application including blueprints are in application.py. Standard Static folder is used.	Application is divided into 3 modules/applications. Admin, Influencer and Sponsor. Used blueprints to register all 3 applications to main application. Admin: Admin model is defined in model.py, forms are defined in forms.py and all controllers are in views.py Influencer: Influencer model is defined in model.py, forms are defined in forms.py and all controllers are in views.py Sponsor: Sponsor model is defined in model.py, forms are defined in forms.py and all controllers are in views.py	Html files of modules Admin, Influencer and Sponsor are stored under respective templates folders. Few re-usable components are prefixed with underscore. i.e. _flashmessages.html etc. Base.html & Nav.html are rendered in all html files. Used bootstrap to enhance look & feel of the application screens



```
Project
v mad1  D:\yajath\IITM\mad1
    > admin
    > api
    > include
    > influencers
    > Lib
    > migrations
    > Scripts
    > sponsors
    > static
    > templates
      database.sqlite3
      .gitignore
      pyvenv.cfg
      application.py
      main.py
      settings.py
      requirements.txt
> External Libraries
> Scratches and Consoles
```



```
v admin
      _init_.py
      forms.py
      models.py
      views.py
> api
> include
v influencers
      _init_.py
      decerators.py
      forms.py
      models.py
      views.py
> Lib
> migrations
> Scripts
v sponsors
      _init_.py
      forms.py
      models.py
      views.py
```



```
v templates
  v admin
      admin.html
      flag.html
      home.html
      unflag.html
  v influencers
      ad_details.html
      campaign_details.html
      find.html
      home.html
      influencer.html
      influencer_details.html
      my_ads.html
      requests.html
      search.html
      signin.html
      signup.html
      stats.html
  v sponsors
      ad_details.html
      campaign_details.html
      campaigns.html
      dlt_ad.html
      dlt_campaign.html
      find.html
      home.html
      influencer_details.html
      new_ad.html
      new_campaign.html
      request_influencers.html
      requests.html
      search.html
      signin.html
      signup.html
      sponsor.html
      stats.html
    _formhelpers.html
    base.html
    index.html
    nav.html
    nav_influencer.html
    nav_sponsors.html
```

The E Library application has the following features

- ✓ Admin's Dashboard
- ✓ Influencer Profile
- ✓ Campaign Management
- ✓ Advertisement Management
- ✓ Search functionality for Campaigns/Influencers
- ✓ Creating Campaigns/Ads
- ✓ Sponsor Profile
- ✓ Influencer Login and Signup
- ✓ Sponsor Login and Signup
- ✓ Requesting Ads
- ✓ Flag/Unflag users
- ✓ Check Stats

Video

https://drive.google.com/file/d/1kZaLPdlxFDo625ZD5A9auLdd6UqyjfKr/view?usp=sharing