Instagram Clone Using Python

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Abstract: *Social Media gives the common man a platform to voice with complete freedom of expression, be it for supporting a cause or for addressing a national or international issue of any sensitivity. Business prospects and job opportunities gear up as social media is a stage with global audience to showcase our talents. Social media started off as a trend among youth but today it has emerged as a medium that influences even Presidential elections. Instagram a is a social media app that has grown immensely over the years, and it continues to broaden its horizons. The photo-sharing app has gone a long way from once being a favorite for vacationers sharing their holiday pictures to now appealing to all kinds of influencers, advertisers, and brands.*
The early version of Instagram was a html prototype for photo-sharing. But as time progressed, a bundle of languages were used to create this awesome clutter free app. Through this project, we'll discover a way to build a basic functional clone of Instagram, relying on Kotlin and Firebase. A growing number of people are interacting on the web to express and share their views.

Keywords: Social networking, Instagram, Beliefs, Qualitative, Marketing, tool, Businesses, Digitalization

I. INTRODUCTION

Instagram App Clone is increasingly developing as technopreneur-based social media for sharing photos and videos. It has been research yet the notion about Instagram literature review which showed the big picture using data from all countries. This study aims to visually map the status of international scientific literature on Instagram using the Scient metric application. The introduction to an Instagram clone would introduce the project and provide an overview of what the clone aims to achieve. Here's an example of an introduction for an Instagram clone.

In recent years, Instagram has become one of the most popular social media platforms in the world, with millions of users sharing photos and videos every day. However, Instagram has faced criticism for its handling of user data and privacy concerns, as well as its algorithm changes that can negatively impact user engagement. To address these issues and provide users with an alternative social media platform, we have developed an Instagram clone that offers similar features and functionality to the original platform. Our Instagram clone aims to provide users with improved privacy and data handling policies while also offering new and innovative features that are not currently available on Instagram.

In this report, we will provide an overview of our Instagram clone project, including the design, development, and implementation of the clone. We will discuss the features and functionality of the clone, as well as the challenges and opportunities that we encountered during the development process. Overall, our Instagram clone aims to provide users with a new and innovative social media platform that offers improved privacy and data handling policies, as well as new features that enhance the user experience. We believe that our clone has the potential to become a popular alternative to Instagram and provide users with a fresh perspective on social media.

II. LITERATURE REVIEW

DUIN J. VAN et al 2019 proposed that The affordance provided by Instagram and its Instagram Stories, and the purpose of this goal is to show that the contemporary ephemeral image is employed in favor of the platform's strategy to guide the users towards sharing their images at a high frequency. Arguably, this strategy can be related to the

company's business model, and it feeds into the assumption that Instagram Stories is balancing the participation of its users with a strategy to increase profits. Through the design of the platform, Instagram steers the user towards this need of using the photo as a means of communication. JASON G MILES et al 2020 proposed that Instagram is the first social media site that was born mobile" and has become the key to kicking your mobile marketing into high gear. Instagram provides an opportunity for you to bring your company into the new mobile revolution without complexity or drama. (5)

III. METHODOLOGY

Instagram clone is our pre-built social media app software that helps entrepreneurs to build an Instagram-like app. The Instagram App Clone using Code Sandbox. We can implement the clone to gain market insights with social listening and improve community engagement.

Technologies:

Creating an application which is independent of any end- platform involves the below mentioned generalized methods. The major factors of an application are Frontend, backend and the database.

Backend:

API-Application Programming Interface. API is the backbone of ay application. It is responsible to handle all the logics and computations required to serve the end users with the requested responses.

Server - A server is nothing but a machine with higher computation capacity, available 24X7 where all the code resides.

Frontend:

Frontend is the face of any application. It is super responsive and user friendly, responsible for keeping all the complex logics and computations hidden from end users.

Leverage of using API as a backend, gives developer platform independence of choosing between Mobile application, web application, serverless application or allowing other parties to use API for accessing the end points.
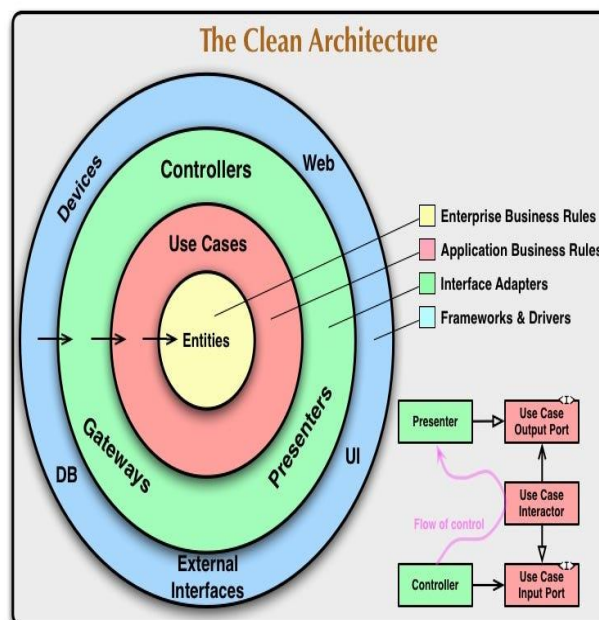
IV. ARCHITECTURE OF PROJECT

Fig. 1. The Clean Architecture

V. MODULES DEVELOPED

- Root
(Root Directory, that contains all files and media)
- Core
(Django App module)
 -Views
(Contain all logic and responsible to handle requests)
- Models
(Python object with database schema)
- URLs
(End points for application)
- Admin
 (Python object to be allowed for Admin)
- Serializer
 (Serialize incoming/outgoing response data)
- Profiles
(Django App module)
- Template
 (Bootstrapped templates for frontend)
- Static
 (Static files including media and images)
- Posts
 (Django App module)
- Users
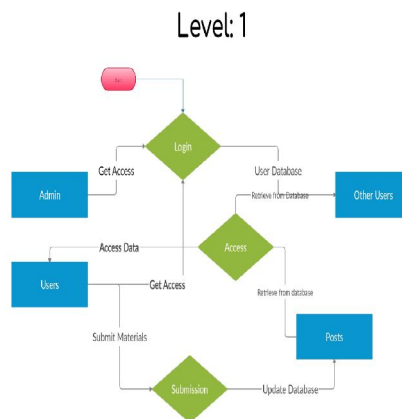 (Django App module)

VI. FLOW DIAGRAM

Fig. 2. Flowchart

VII. GRAPHICAL USER INTERFACE

Frontend:
Frontend is the face of any application. It is super responsive and user friendly, responsible for keeping all the complex logics and computations hidden from end users.
Leverage of using API as a backend, gives developer platform independence of choosing between Mobile application, web application, serverless application or allowing other parties to use API for accessing the end points.

VIII. DATABASE

Database is the memory of any application responsible to store all the application data and allowing the application to retrieve the same whenever required, in a very next to negligible time.

One more role, that a DB manager is responsible to organize the application's data and maintain the security and integrity of data.

This methodology can be implemented using any of tech stack for example - MEAN, MERN, JAVA (Spring boot) or Python (Django rest framework) for backend and REACT, Android, swift for frontend combined with any SQL or NoSQL Databases like Oracle SQL, MongoDB etc.
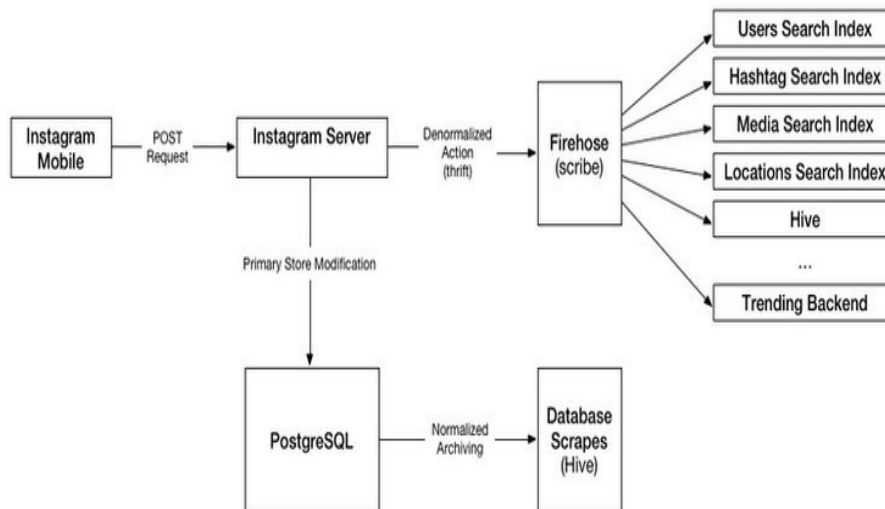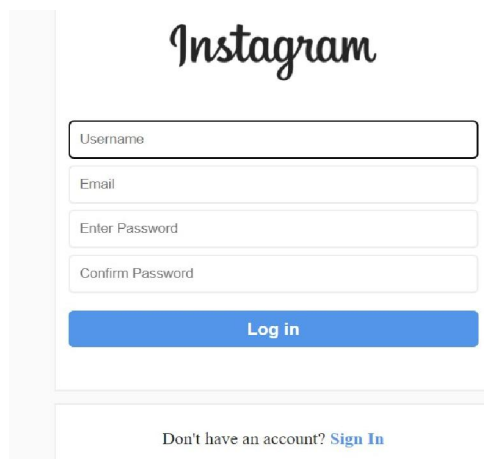
IX. ER-DIAGRAM

Fig. 3. ER- diagram of Instagram

X. OUTPUT

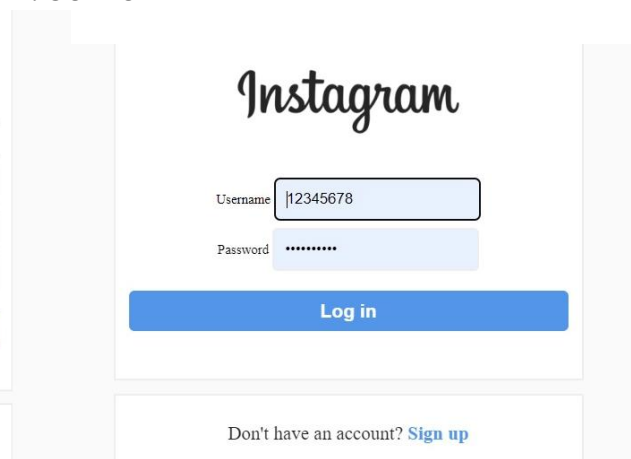
Fig. 4. Sign-Up Page

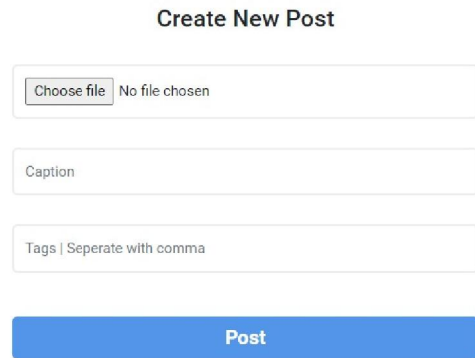**Fig. 5. Login Page**

Fig. 6. User Profile
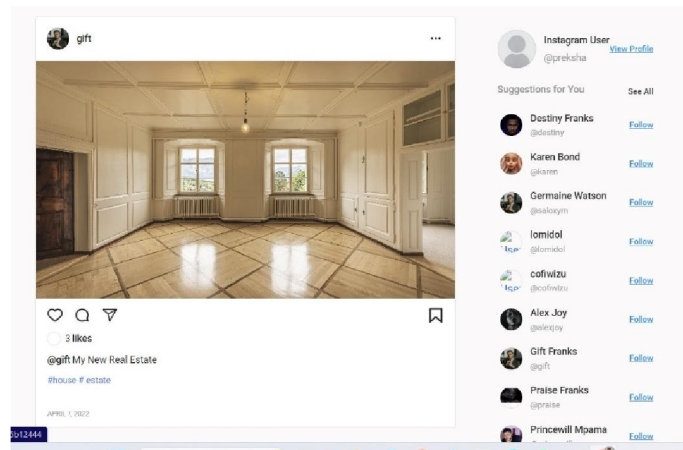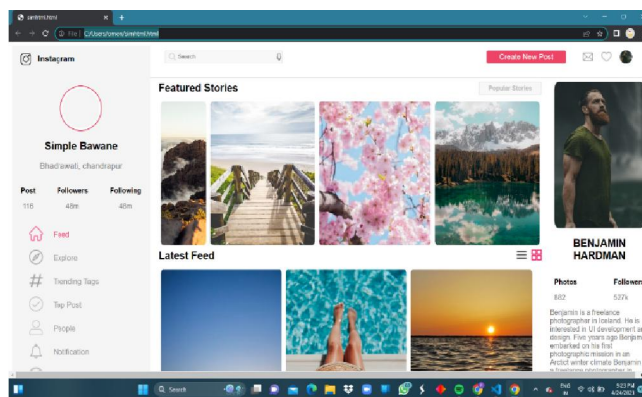

Fig. 7. Create Post

Fig. 8. Post

Fig. 9. Feed

X. ADVANTAGE

- Profile Management.
- Upload photos/video.
- News Feeds.
- Social Media Sharing.
- Advanced Search Option.

- Create and Manage Channel.
- Share Stories.
- Multiple Sign-Up/Sign-In.

XI. DISADVANTAGES

- No Customization support.
- Lack of data storage control.
- Possible rejection by control/ Copy right.
- Authenticity.
- Security.

XII. FUTURE SCOPE

- Create a marketing strategy.
- Ask yourself who is your audience, how often you are going to post and what hashtags you are going to curate/use.
- Use hashtags effectively - don't overuse them and only use ones that are relevant to your content & pictures.
- Too many hashtags can become annoying/spam to your users. Instead, find the popular hashtags in your brand/content and start using them
- Pay attention to your followers - like and comment on pictures that are about your events/department.
- Hosting lives events on Instagram.

XIII. CONCLUSION

The development of an Instagram clone offers the opportunity to create a social media platform that addresses some of the concerns and issues users have had with the original platform. The clone aims to provide users with a more secure and enjoyable social media experience by offering improved data handling policies and new features that enhance the user experience.

Instagram App Clone have become popular due to the success of Instagram. Businesses can capitalize on the popularity of Instagram by developing similar applications that offer unique features and functionalities. However, businesses need to ensure that their Instagram clones are secure and protect user data to gain the trust of users.

Through the design, development, and implementation of the clone, we have learned that building a social media platform is a complex process that requires careful consideration of user needs, preferences, and feedback. It is also essential to prioritize data privacy and security to build trust with users.

The Instagram clone project has the potential to attract users looking for an alternative social media platform that offers enhanced privacy and security features while retaining the core features and functionality of Instagram. However, the success of the clone will depend on its ability to attract and retain users and compete with existing social media platforms.

Overall, the Instagram clone project represents an exciting opportunity to explore the possibilities of social media and create a platform that better meets the needs and expectations of users.

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DOI: 10.48175/IJARSCT-14057

ISSN
2581-9429
IJARSCT

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