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## SOCIAL NETWORK MOBILE APPLICATION LIKE INSTAGRAM

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### ABSTRACT

The fast growth of photo editing and sharing apps like Instagram has prompted a slew of businesses to create their own customised apps that work similarly to Instagram and allow users to edit and share photos publicly online. This project will be a Java-based Android application for photo editing and sharing, similar to Instagram. The application will be developed with Android Studio, and the back-end will be designed for comprehensive client-server communication. We'll use Volley Library to provide users with the ability to post to the application online. For server connectivity, PHP scripts will be used. This photo-sharing app will allow users to do all of the functions of Instagram on the web. Users will have access to basic photo editing and sharing, narrative sharing, and search options.

**Keywords:** Photo Editing, Photo Sharing.

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### I. INTRODUCTION

The desire to complete a tough endeavor in a fascinating field of study was the driving force behind this initiative. The chance to learn about Android App Development, particularly in the social media network area, was enticing. This is a subject that I may pursue further research in as a postgraduate student.

#### 1. Aim:

The project's goal is to allow users to openly share images. As a permanent post, photo sharing will be permitted. Basic photo editing and filtering will be available to users. Android users will have access to all of the capabilities, as well as a simple search function in the app, which will allow them to follow/unfollow their friends and even like and comment on their photos using a username.

#### 2. Objective

The objective of the project is to allow users to share photo publicly.

1. Photo sharing will be allowed as permanent post.
2. Users will be provided with basic photo editing and filters feature.
3. All the features will be available for android users and they will get easy search option in the application where with the help of username they will be able to follow/unfollow their friends and even like & comment on their photographs.
4. Every user will be able to make their own customized profile by uploading profile photo, choosing unique username and writing bio.
5. This will allow us to satisfy our objective of user-friendly photo sharing application which consists of all the important options for on-the-go use.

#### 3. Scope:

The project is a Java-based Android photo sharing software that will be similar to Instagram. The application will be developed in Android Studio, and the back-end will be designed for complete client-server communication. This photo-sharing software will allow users to do everything they can on Instagram online. Users will have access to basic photo editing, photo sharing, and search functions.

#### 4. Motivation

The motivation for doing this project was primarily an interest in undertaking a challenging project in an interesting area of research. The opportunity to learn about Android App Development and especially in the niche of social media network was appealing.

## II. LITERATURE SURVEY

### Survey of Existing System:

[2] Two issue dusters have been identified at the strategic level: one selecting content based on user demand, and the other pleasing users by improving their experience on the platform through efficient and speedy photo sharing.

[1] How Does Filtering Our Photos Affect Engagement? To understand how filters work, Saeideh Bakhshi, David A. Shamma, Lyndon Kennedy, and Eric Gilbert presented a combination of large-scale data analysis and small-scale in-depth interviews. This article aided us in learning more about the function's filters play in enticing photo consumers to interact socially.

[3] These findings have various practical implications for continuing research in social interaction and photography, such as building filters for both professional and casual photographers, or developing strategies to priorities and rank information in order to increase engagement.

[8] A digital camera takes distinct measurements of red, green, and blue light, then analyses them to create colours.

A camera, on the other hand, can measure a lot more colours than the human eye can see. JPEG files, for example, are images made up of real colours that can be seen with the naked eye. Extra colour data is clipped and simplified, resulting in the image's brightest and darkest areas looking solid white or solid black, respectively.

[6] Thus, we need to make applications which can edit JPEG files with various filters & provide many other colour corrections solutions.

## III. LIMITATIONS OF EXISTING SYSTEM

- a. Less options available for in-app photo editing.
- b. Reduces the quality of the images.
- c. A lot of features which makes it difficult to use for the older generations.

## IV. PROBLEM STATEMENT

In today's world, everyone has the habit of capturing their moments in pictures and sharing them with their friends. As the smartphone camera quality is increasing, photo sizes are also increasing & that's why we need the application where user will be able to instantly share their moments with their loved ones. To satisfy this need of the hour, we are developing an android application which will provide users with all the functionalities to connect with their friends and share all their fun and important moments/events in the form of photographs publicly using internet.

## V. PROPOSED SYSTEM

### Architecture Diagram

A software architecture is a mental model that depicts a system's structure, behaviors', and other aspects. An architecture description is a systematic characterization and representation of a system that is organized in such a way that it can be used to reason about the system's mechanics and behavior. The Front-end and Back-end are the two elements of the Software Architecture.

- Front-end: Java & XML
- Back-end: PHP & MySQL

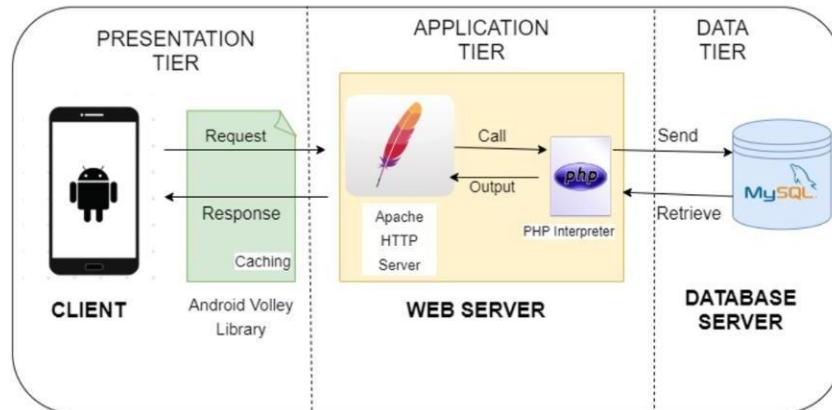


Fig 1: The Basic Architecture Diagram

## VI. METHODOLOGY

The project is a Java-based Android photo sharing software that will be similar to Instagram. The application will be developed in Android Studio, and the back-end will be designed for complete client-server communication. This photo-sharing software will allow users to do everything they can on Instagram online. Users will have access to basic photo editing, photo sharing, and search functions. Features of the system.

### 6.1 Admin

An admin portal where admin can log in and manage the posts request of the users & mark them as offensive or not offensive based on the guidelines of the application. And delete the posts which are posted by the users. Admin can also add users & see their credentials.

### 6.2 User:

Our Instagram application will have the following in-built photo editing features: Brightness, Contrast, Warmth, Saturation, Vignette, and Sharpen. Extra features that we can add (which Instagram doesn't provide): frame, round (rounding the corners of image), pixelate, draw on image, stickers, text

1. Users can login & register & explore news feed.
  2. Users can see each other's comments and post their own comments
  3. Users can use search feature to search for other users and to see their profile.
  4. Users will able to follow other users and friends. Users will be able to check other users' profile and previous posts.
  5. Camera feature will be given to click in-app pictures.
- This project will be a Java Based Photo Editing and Sharing Android Application which will be similar to Instagram.
  - We will be using Android Studio to develop the application and back-end will be made for complete client-server communication.
  - We will use Volley Library to allow users with Post option online on the application.
  - PHP scripts will be used for server communication.
  - This photo sharing app will allow user to do all the Instagram like activities online.
  - Basic photo editing, sharing and search related features will be provided to the users.

### 6.3 Technical Procedure:

We will be making GET/POST requests using Volley Library. Volley is an HTTP library that makes networking for Android apps easier and faster. We will be using Android Studio to develop the application and back-end will be made for complete client-server communication. We will use Volley Library to allow users with Post option online on the application. PHP scripts will be used for server communication.

- We are fetching data from Json Response we get from the web server.
- We will be using PHP scripts to talk to the Apache server and making connection with the MySql Database Server

**6.4 Working of the system:**

First, the user will have two options given: login to existing account or sign up and create a new account. After logging in, there will be 6 options in the navigation tab,

1. Home tab, which shows the news feed which the user can explore.
2. search tab, where user can search a person by a username
3. Create a new post, where user will be able to select a picture from gallery or directly from camera. User can edit that selected photo, write a caption for and then post it.
4. profile tab, where user can edit his profile
5. In the next option, user can see all the posts they have liked so far.
6. Log out from the application.

**6.5 Our Instagram application have following in-built photo editing features:**

1. Brightness
2. Contrast
3. Warmth
4. Saturation
5. Vignette
6. Sharpen

**6.6 Extra features that this application has which existing systems don't have:**

1. Frame
2. Round (rounding the corners of image)
3. Pixelate
4. Draw on image
5. Stickers
6. Text

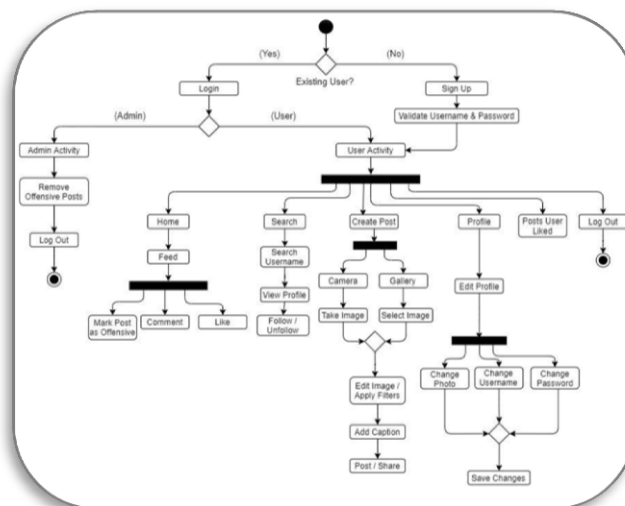


Fig 2: UML Diagram

**VII. SOFTWARE DEVELOPMENT LIFE CYCLE**

The software model used in the project is Prototyping Model. Pls refer fig 1.1 for prototyping model

**1. Software Analysis:**

The software model used in the project is Prototyping Model.

**Step 1: Planning & Requirements:**

We discovered different IEEE papers, gathered information about our project, and analyzed existing systems during this phase to learn how to design our project and what society expects from existing systems.

**Step 2: Analysis & Design:**

We analyzed existing systems and created our system architecture, user flow diagram, wireframes, and data model during this phase.

**Step 3: Implementation:**

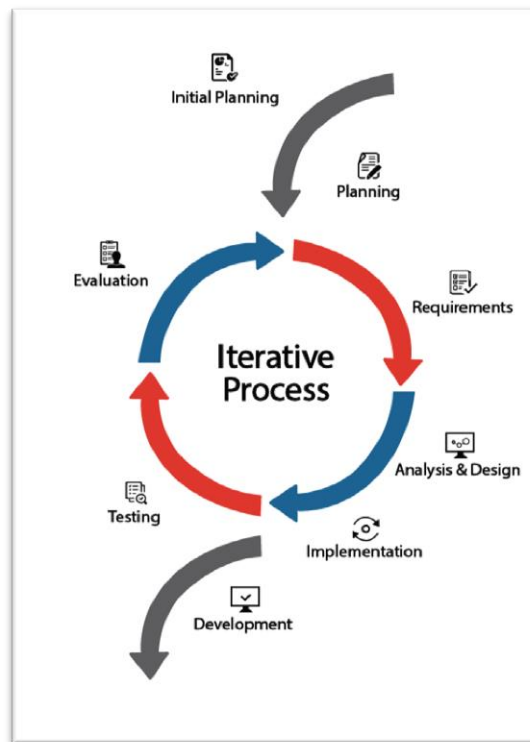
During this phase, we decided on our technology stack and coded in accordance with our design.

**Step 4: Testing:**

This phase is the testing and debugging phase, we will try to solve the existing bugs in our project and try to optimize to our best.

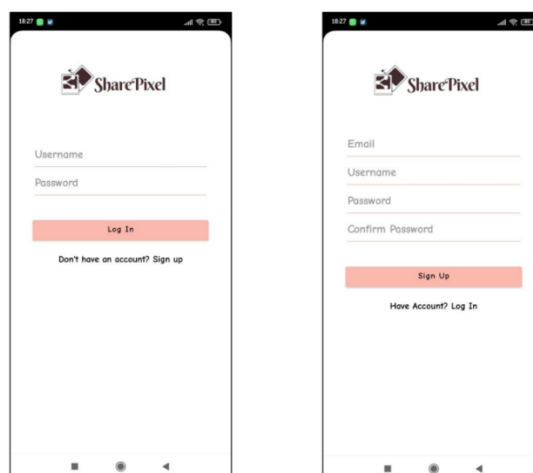
**Step 5: Evaluation:**

Once all prior stages have been completed, it is time for an evaluation of development up to this stage. This allows the entire team to examine where the project is at, where it needs to be, what can or should change, and so on.

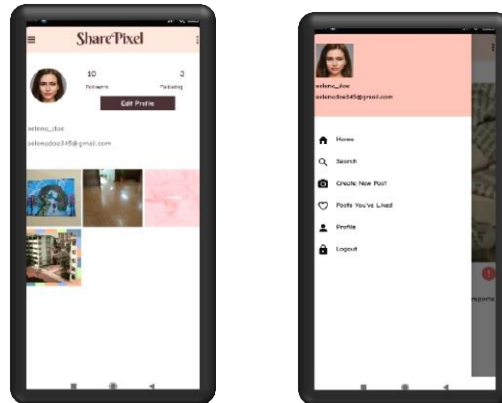


**Fig 3: The Prototype Model**

**VIII. RESULTS & DISCUSSION**

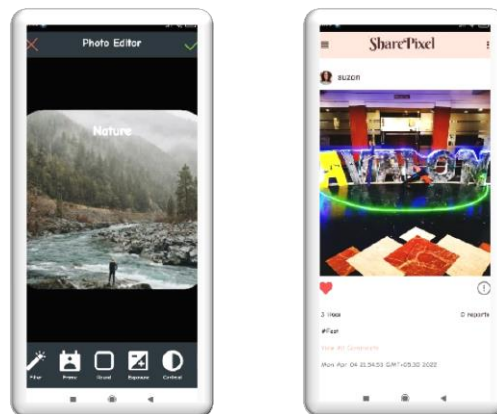


**Fig 4: Login & Register page**



**Fig 5:** Result Page

1. Users will be able to check other users' profile and previous posts.
2. Users will be able to follow other users and friends.
3. Users can use search feature to search for other users and to see their profile.



**Fig 6:** Result Page

1. Camera feature will be given to click in-app pictures.
2. Users can login & register & explore news feed.
3. Users can see each other's comments and post their own comments

## IX. CONCLUSION

The proposed system allows users to modify photos on their phones and publish them on social media. The user can make a new account or login to an existing one, edit images, share them on the feed, and follow other people. The system that will be constructed will be tested, and its flaws will be discovered. The remainder of the work will be completed in accordance with the existing schedule.

## X. REFERENCES

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