A Mini Project Report on

Social Media App:

Social Scroller

T.E. - I.T Engineering

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CERTIFICATE

This to certify that the Mini Project report on social scroller has been submitted by Kanan Sananse(20104125), Disha Bendale (21204011) and Sania Mane(21204014) who are a Bonafede students of A. P. Shah Institute of Technology, Thane, Mumbai, as a partial fulfilment of the requirement for the degree in **Information Technology**, during the academic year **2022-23** in the satisfactory manner as per the curriculum laid down by University of Mumbai.

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ABSTRACT

User would need number of applications for different activities like editing photos, messaging app and connecting with people. Lots of storage will be occupied for storing various applications for performing these activities. It is time consuming as user needs to switch from one application to another to perform different activities. Users are provided with all the functions like view and post photos , edit his/her own profile.

The use of social media becomes more popular among all age groups. They use various social media platforms to express their views, share their photos and videos, and exchange ideas and messages in the form of text. Nowadays social media is becoming an effective tool to stay in touch with friends who is far away from you and to stay up to date with news and current events. Many companies use various social media platforms as advertising platforms so that they can reach more and more people. Social media helps bloggers to drive traffic to their websites. By using various social media platforms we can create awareness and share it among a large number of peoples. One of the famous social media platforms is Social Scroller. This platform allows users to share photos and videos with their friends. This report will give a summary of how to develop an app like Social Scroller.

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Chapter 1

Introduction

Social media has played a more important role in people's life. It has been playing an increasingly diversified role in the society after years of development. Nowadays, social media is not only a platform for mass communication, but also a tool to provide various services for people. Instagram, which is the world's fastest-growing social network, can be seen as a typical representative of social media in the modern society. It not only enables its users to take pictures and videos, but also assists its users to share them on other platforms. Social scroller allows users to edit and upload photos and short videos through a mobile app. Users can add a caption to each of their posts and use hashtags and location-based geotags to index these posts and make them searchable by other users within the app. Each post by a user appears on their followers' Instagram feeds and can also be viewed by the public when tagged using hashtags or geotags. Users also have the option of making their profile private so that only their followers can view their posts. Social media allows their users to interact in ways that we could only dreamt of at the turn of century. Registered users of these social media services can share photos, videos and other content in seconds with millions of people all around the world. This is known as posting content. Other users can then comment on, share or like these posts to show their appreciation. Social media platforms also collect seemingly endless amounts of data on their users. They collect and store your personal information that you provide when you sign up, and they track and record your interests and online behaviour. Social Scroller is not only a tool for individuals, but also for businesses. The photo-sharing app offers companies the opportunity to start a free business account to promote their brand and products. Companies with business accounts have access to free engagement and impression metrics.

1.1. Purpose

Social Scroller is a photo and video sharing application. People can upload photos or videos to our service and share them with their followers or with a select group of friends. They can also view, comment and like posts shared by their friends on this. A simple way to share good-looking, edited, photographs. Social Scroller's essence is that it's a photo sharing application - how you interpret that as the user however is completely up to you. You could choose to only follow your friends and family, and use it as an app to stay in touch and keep up-to-date with the lives of those close to you. Likewise, the pictures you'll share will keep them up-to-date as well with your happenings.

1.2. Problem Statement

User would need number of applications for different activities like editing photos, creating short videos, messaging app and connecting with people. Lots of storage will be occupied for storing various applications for performing these activities. It is time consuming as user needs to switch from one application to another to perform different activities.

1.3. Objectives:

- To develop a system to enable the user to share photos and videos easily.
- To create user friendly interface.
- To create better content.
- To create social video content.
- To get more followers.
- Online community
- Drive engagement
- Drive traffic to website
- Announcing upcoming events
- Product and services
- Building bonds with influencers

1.4. Scope:

- Set up the Authorization:
1. Make a new account.
2. Login with existing social media account
3. Users are given option of forgot password
- Editing of Profile:
1. User will be able to edit their profile.
2. User will be able to create content.
- User can follow other users.
- Image Uploading:
1. User will be able to post/view photos.
- Users will be able to like on the posts.
- It's a social platform where people can communicate easily with each other.
- It's a social platform that can be used by everyone for advertising/branding of their products.
- It can be used by everyone i.e. from younger generation to old generation.

Chapter 2

Literature Review

Literature 1

The Journal of Social Sciences Research

Research in the Instagram Context: Approaches and Methods

Social media has become channel of mass communication. It is a social network which allowed users to interconnect with other users. Instagram is a photo sharing social application. It is also based on picture interaction because of its functions. It has many functions like chat, personal status publishing, photo posting, video posting and so on. It is easy to learn and operate as it has many basic functions such as capture, photo makeover, photo sharing and commenting. In researches on Instagram, it was not only for sharing pictures but also for sharing location with friends. Also sharing experiences and people are able to access medical information on Instagram.

The research on Instagram also investigated between facial photos and participation passion of comments, likes from other users. Qualitative analysis was done mainly on experiences. Users past and present experiences are considered. It is also concluded that many programming API's are used. The content that is uploaded on platform, the relationship created by interacting socially, expression of users feelings through comments etc all these are the characteristics of Instagram.

Technology used:

Frontend: Django

Backend: PostgreSQL

<u>Literature 2</u>

What We Instagram: A First Analysis of Instagram Photo Content and User Types
Yuheng Hu Lydia Manikonda Subbarao Kambhampati

Social media is a social network which is used for interacting to the people. Instagram provides a way to capture photos and videos and to share it. In recent years, Instagram is emerged as a new spotlight for its sharing service and capturing photos and videos. It is a popular photo and video capturing mobile application.

It has privacies such as users uploaded photos and videos are viewed by only the people they follows and followers. It also has a option of making a short videos so we can create our own short video and can post it. Users can like and comment on other users post. Users can also edit and apply filters on their photo. Data collected during Instagram API is a qualitative examination of users characteristics with respect to their photos.

<u>Technology used:</u>

Frontend- Python & HTML5JavaScript

Backend- PostgreSQL

Literature 3:

In a World of Social Media: A Case Study Analysis of Instagram .Dr. Daryl D. Green1*, Dr. Richard Martinez1, Amalan Kadja2, Lauran Evenson2 Lisa MacManus2, Stephanie Dirlbeck2

Instagram is a mobile app that enables users to instantly turn their mobile pictures to visual appearing images. Instagram is the most popular photo capturing media app till date. It is widely used for communication and information exchange. It allows people to manipulate their photos to their liking. It specializes in photo sharing and advertising. It evolved too quickly to become one of the most favourite social media platforms for individuals. This study is significant because this research widens contemporary assumptions about strategic thinking for social media mechanisms. This platform is beneficial for good advertising opportunities and technological advancements.

Technology used:

Frontend- Python & HTML5JavaScript

Backend- PostgreSQL

Chapter 3

Proposed System

Social Scroller is the web application in which all the users will be able to connect with each other easily. Its features and functions are user friendly. We have designed the application such that users will be able to post and view photos and videos, share their photos, and the users will also be able to like and comment on the posts. The users will be able to view or edit their profile which includes option of changing their profile photo.

3.1. Features and Functionality:

Social Scroller allows users to edit and upload photos through a mobile app. Users can add a caption to each of their posts and use hashtags. Each post by a user appears on their followers' Instagram feeds and can also be viewed by the public when tagged using hashtags. Users also have the option of making their profile private so that only their followers can view their posts. As with other social networking platforms, Social Scroller users can like, comment on and bookmark others' posts. Social Scroller is not only a tool for individuals, but also for businesses. The photo-sharing app offers companies the opportunity to start a free business account to promote their brand and products. Companies with business accounts have access to free engagement and impression metrics.

Following are the basic features and functionalities:

- Users will be able to post and view their photos.
- User will be able to communicate with other users.
- Users will be able to like and comment on the posts.
- User will be able to edit their profile.
- User will be able to edit photos.

Chapter 4

Requirement Analysis

4.1 Functional Requirements:

This type of requirement what the system has to deliver. Firstly, for Social Scroller, the users should be able to upload/view photos. One User can follow other users. Another essential feature is that the system should display a user's News Feed that consists of photos of all the people the user follows. The users should be able to like and comment on the posts.

4.2 Non-functional Requirements:

Performance, availability, consistency, scalability, reliability, etc., are important quality requirements in system design. We need to analyze these requirements for the system. Our system should be highly available. In the case of any web service, it's a mandatory requirement. Home page generation latency should be at most 200 msec. If the home page generation takes too long, users will be dissatisfied, which is not acceptable. As we choose for the system's high availability, we should keep in mind that may hamper consistency across the system. The system should also be highly reliable, which means any uploaded photos by users should never be lost.

4.3 Feasibility Study:

A feasibility study is an assessment of the practicality of a proposed plan or project. A feasibility study analyzes the viability of a project to determine whether the project or venture is likely to succeed. The study is also designed to identify potential issues and problems that could arise while pursuing the project. We are developing a clone of existing social media which is easy for all users to operate.

4.4 Technical Feasibility:

Technical Feasibility assessment is focused on the present technical resource available in the organization. It studies if the technical resources including the technical team are capable of converting the ideas into working system. Software Requirements are:

Frontend: HTML, CSS, JavaScript

Backend: MYSQL

Development Environment: Microsoft Visual Studio

Chapter 5

Project Design

5.1. Use Case Diagram:

- The user will be able to create a new account using Sign-up option in which all details have to be filled. This information will be saved in database.
- If the user already has his/her account then user can directly Sign-in.
- The provision of for forgot password is also given to the user.
- Then after signing-in home page will appear.
- The user profile page includes edit profile option.
- The user will be able to post photos and videos.
- There is also an explorer or search bar to search for other users.

5.2. Data Flow Diagram (DFD):

Level 0:
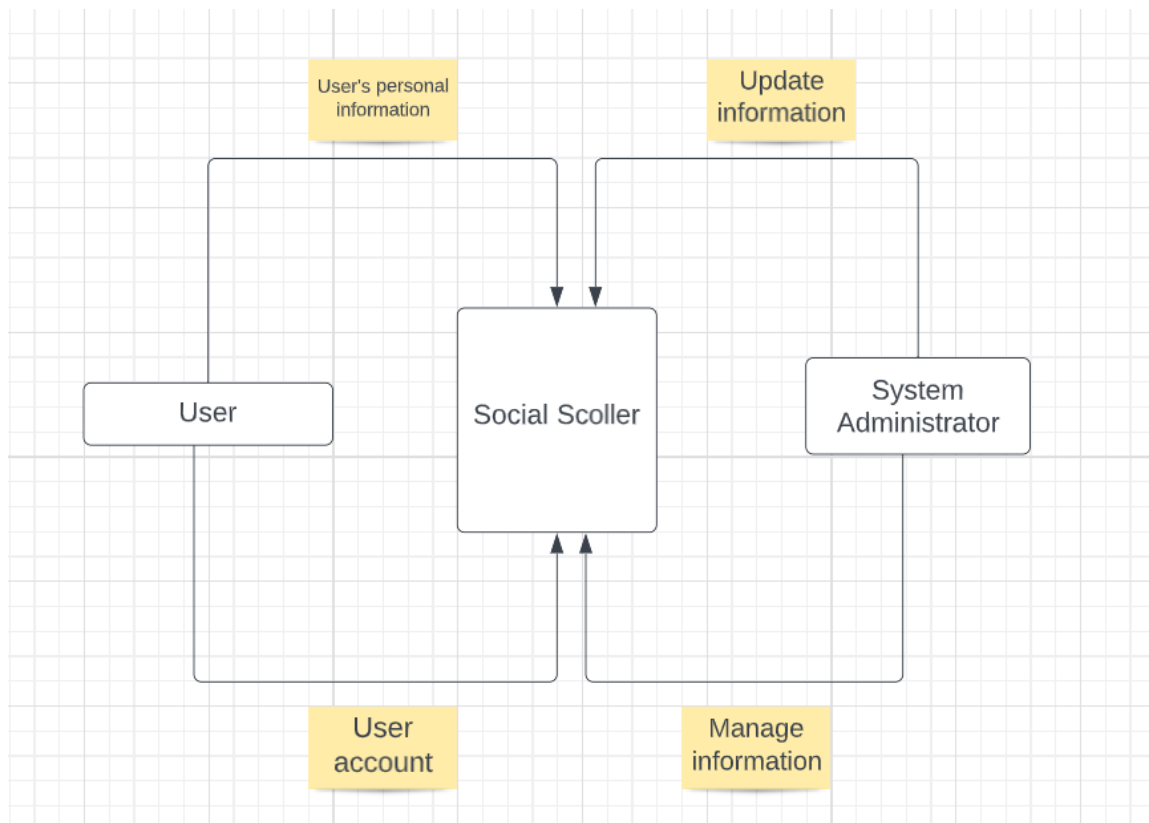
- In Level 0, the user and the system administrator is connect to the system. The user can fill his or her personal details and access the account.
- The diagram shows three sources of data within the system: the User(s), Social Scroller Application, and System Administrator.
- Users provide information as input, the system generates all information and services as output to the users.

Level 1:
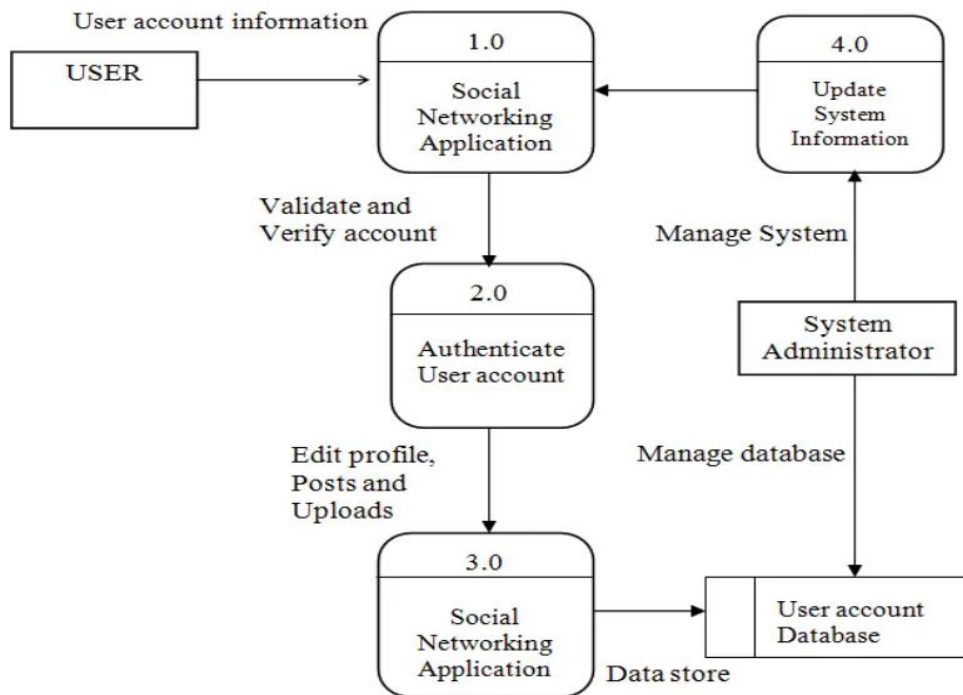
- In Level 1, the user after accessing the account can edit profile, post photos and the data is stored in user account database managed by system administrator.

- This diagram represents the Social Scroller Application major processes, data flow and data stores.

- There are three streams or flows of data. The user information input for registration is being stored in user account database.

Level 2:
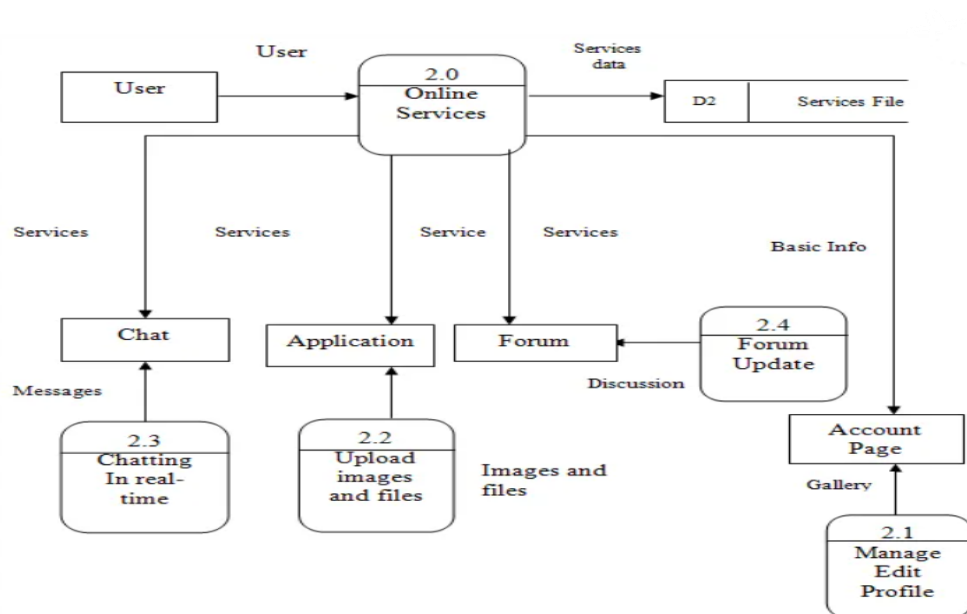
- In Level 2, the user can access all the services like editing profile, posts, likes and comments and validated information of credentials is managed in database by system administrator.
- This diagram shows the Online Services.
- The user can use the services of Social Scroller Application like chat: upload photos , like and comment on posts. The user can also manage his/ her profile.

5.3.   System Architecture:

Flow Diagram:
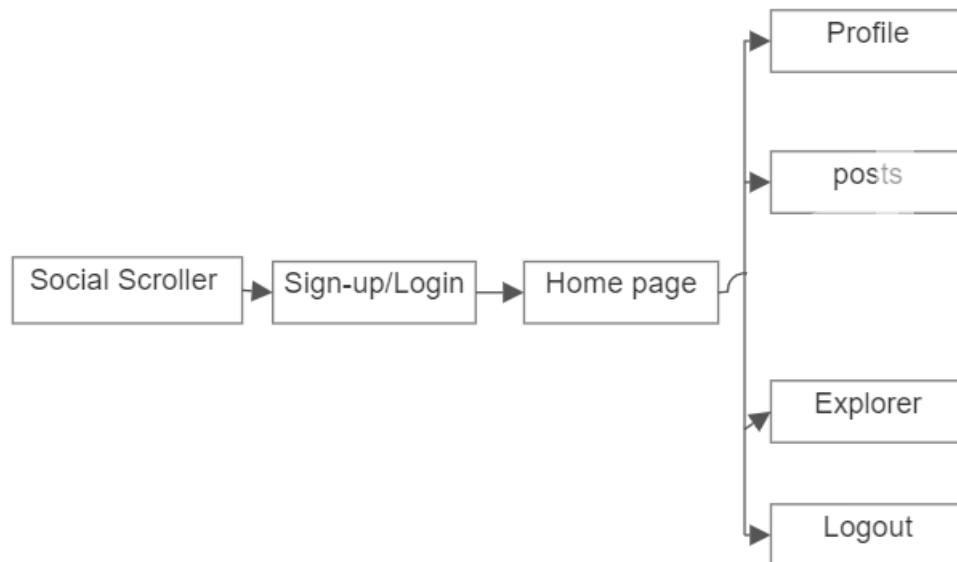
- The user will be able to create a new account using Sign-up option in which all details have to be filled. This information will be saved in database.
- If the user already has his/her account then user can directly Sign-in.
- The provision of for forgot password is also given to the user.
- Then after signing-in home page will appear.
- The user profile page includes edit profile option.
- The user will be able to post photos and videos.
- There is also an explorer or search bar to search for other users.

Chapter 6

Technical Specification

Frontend:

HTML:

HTML stands for HyperText Markup Language. It is used to design web pages using the markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages and markup language defines the text document within the tag that define the structure of web pages.

HTML is used to create the structure of web pages that are displayed on the World Wide Web (www). It contains Tags and Attributes that are used to design the web pages. Also, we can link multiple pages using Hyperlinks.

The basic structure of an HTML page is laid out below. It contains the essential building-block elements (i.e. doctype declaration, HTML, head, title, and body elements) upon which all web pages are created. The HyperText Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser. It can be assisted by technologies such as Cascading Style Sheets (CSS) and scripting languages such as JavaScript. Web browsers receive HTML documents from a web server or from local storage and render the documents into multimedia web pages. HTML describes the structure of a web page semantically and originally included cues for the appearance of the document.

CSS:

CSS(CSS stands for Cascading Style Sheets)

CSS describes how HTML elements are to be displayed on screen, paper, or in other media, CSS saves a lot of work. It can control the layout of multiple web pages all at once External stylesheets are stored in CSS files Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language such as HTML or XML (including XML dialects such as SVG, MathML or XHTML). CSS is a cornerstone technology of the World Wide Web, alongside HTML and JavaScript.

CSS is designed to enable the separation of presentation and content, including layout, colors, and fonts. This separation can improve content accessibility; provide more flexibility and control in the specification of presentation characteristics; enable multiple web pages to share formatting by specifying the relevant CSS in a separate css file, which reduces complexity and

repetition in the structural content; and enable the css file to be cached to improve the page load speed between the pages that share the file and its formatting.

Separation of formatting and content also makes it feasible to present the same markup page in different styles for different rendering methods, such as on-screen, in print, by voice (via speech-based browser or screen reader), and on Braille-based tactile devices. CSS also has rules for alternate formatting if the content is accessed on a mobile device.

JavaScript:

JavaScript often abbreviated to **JS**, is a programming language that is one of the core technologies of the World Wide Web, alongside HTML and CSS. As of 2022, 98% of websites use JavaScript on the client side for webpage behavior, often incorporating third-party libraries. All major web browsers have a dedicated JavaScript engine to execute the code on users' devices.

JavaScript is a high-level, often just-in-time compiled language that conforms to the ECMAScript standard. It has dynamic typing, prototype-based object-orientation, and first-class functions. It is multi-paradigm, supporting event-driven, functional, and imperative programming styles. It has application programming interfaces (APIs) for working with text, dates, regular expressions, standard data structures, and the Document Object Model (DOM).

Backend:

MYSQL:

MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter My, and "SQL", the abbreviation for Structured Query Language. A relational database organizes data into one or more data tables in which data may be related to each other; these relations help structure the data. SQL is a language programmers use to create, modify and extract data from the relational database, as well as control user access to the database. In addition to relational databases and SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity and creation of backups.

Chapter 7

Project Scheduling
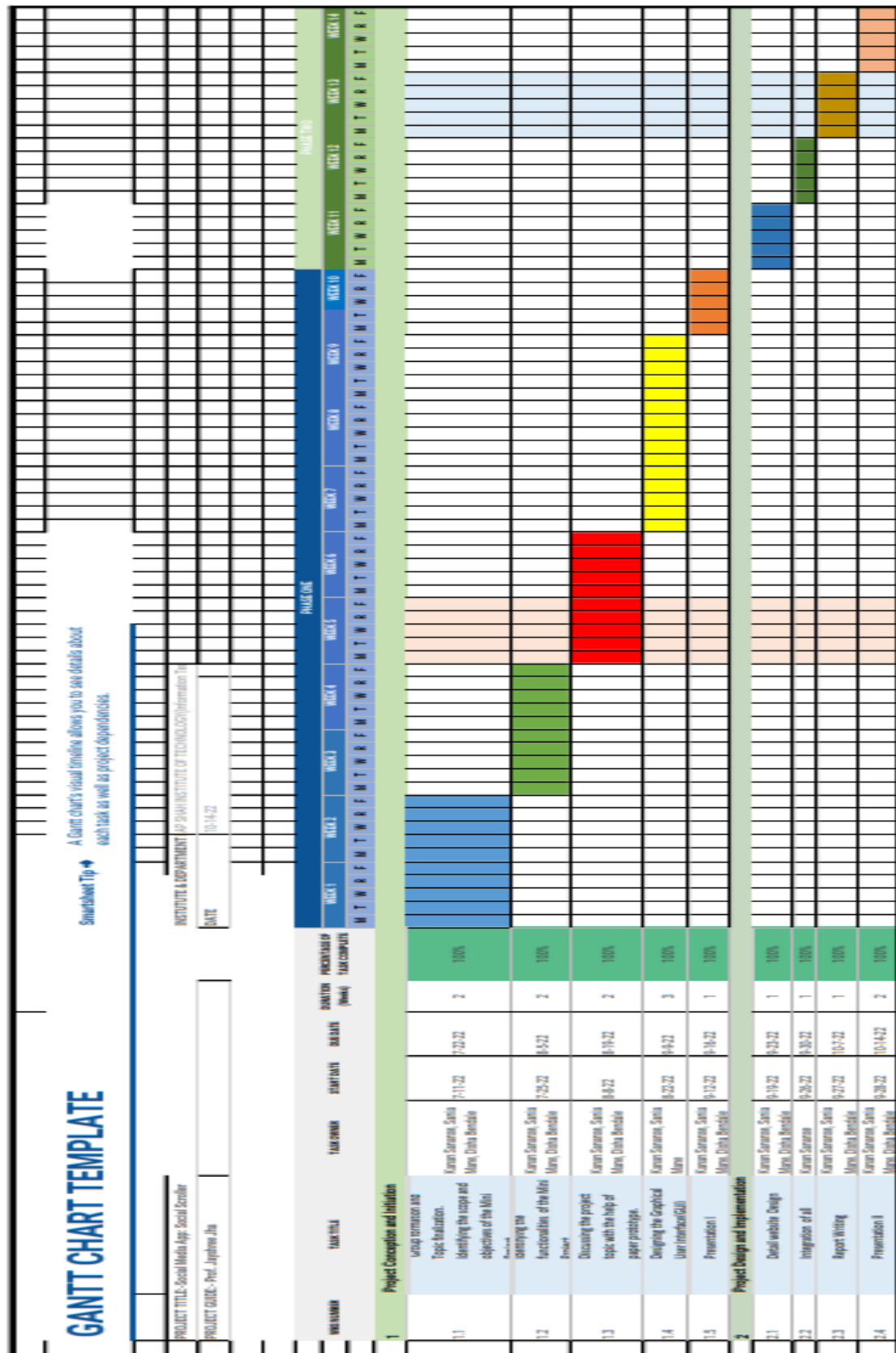
Chapter 8

Implementation

Post Photo On Profile:

Code:

```
<script>
    document.querySelector("#files").addEventListener("change", (e) => {
//CHANGE EVENT FOR UPLOADING PHOTOS
  if (window.File && window.FileReader && window.FileList && window.Blob) {
//CHECK IF FILE API IS SUPPORTED
    const files = e.target.files; //FILE LIST OBJECT CONTAINING UPLOADED FILES
    const output = document.querySelector("#result");
    output.innerHTML = "";
    for (let i = 0; i < files.length; i++) { // LOOP THROUGH THE FILE LIST
OBJECT
        if (!files[i].type.match("image")) continue; // ONLY PHOTOS (SKIP
CURRENT ITERATION IF NOT A PHOTO)
        const picReader = new FileReader(); // RETRIEVE DATA URI
        picReader.addEventListener("load", function (event) { // LOAD EVENT
FOR DISPLAYING PHOTOS
            const picFile = event.target;
            const div = document.createElement("div");
            div.innerHTML = `<img class="thumbnail" src="${picFile.result}"
title="${picFile.name}"/>`;
            output.appendChild(div);
        });
        picReader.readAsDataURL(files[i]); //READ THE IMAGE
    }
  } else {
    alert("Your browser does not support File API");
  }
});
</script>
```

This is the code written using script tag for posting photos on profile page, In this code, addEventListener method is used on button click. The file list object containing uploaded files. Then there is loop through the file list. then FileReader function is used to retrieve data URI and the events are loaded for displaying the photos. picreader.readasdataurl(files[i]) is used to read the image.

Chapter 9

Result and Discussion

User Interface
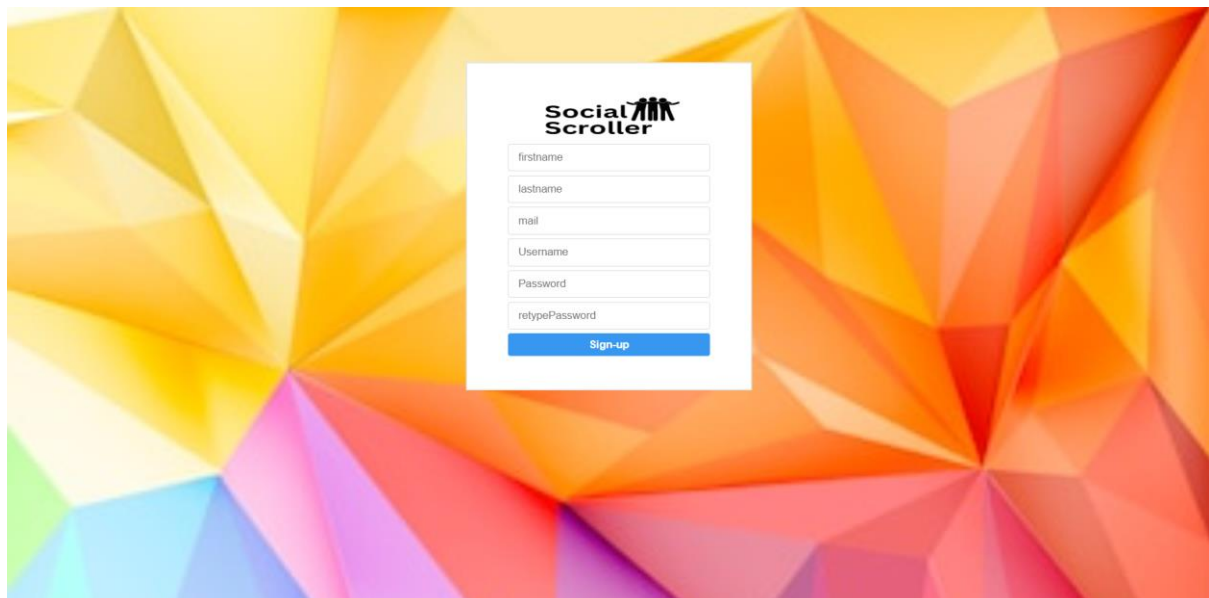
User Interface is concerned with the dialogue between a user and the computer. It is concerned with everything from starting the system or logging into the system to the eventually presentation of desired inputs and outputs. The overall flow of screens and messages is called a dialogue.

The following steps are various guidelines for user interface:

1. The system user must always be aware of what to do next.

2. The system must be able to satisfy the user requirement.

3. The system must only take valid inputs.

Fig 1: Sign-Up Page

This page is the sign-up page of application in which the user will enter his or her own details and create their account.

Fig 2: Login Page:

This page is the login page of appliacation in which the user can enter his or her credentials set while creating account, also forgot password option is given to the user if he or she doesn't remember the password.
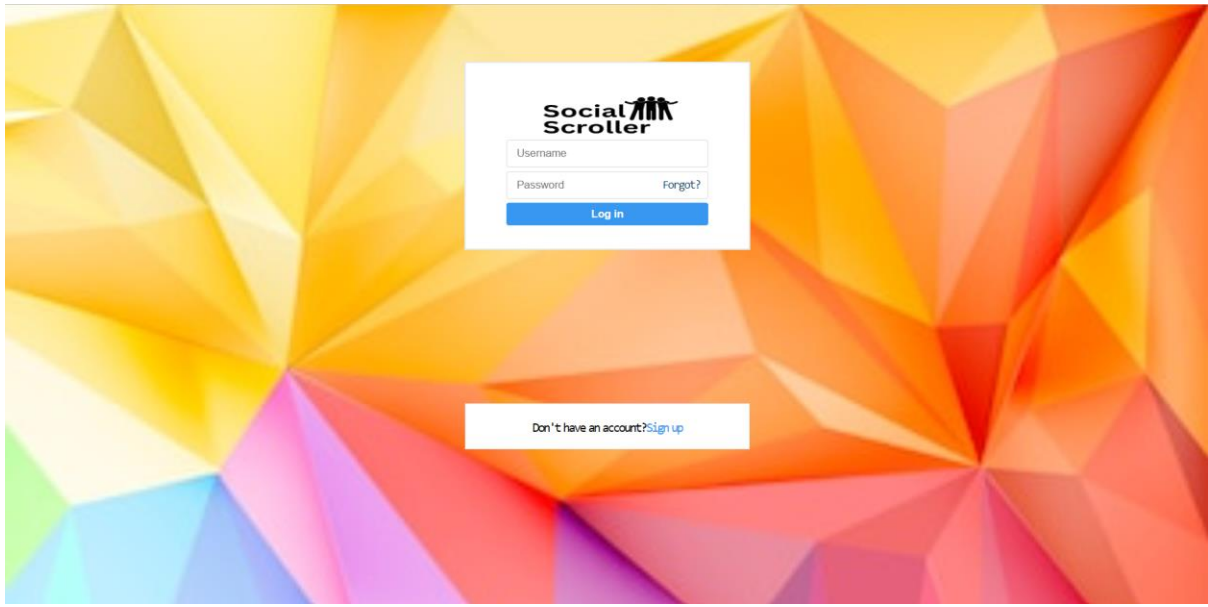
Fig 2.1: Forgot Password Page

The user will be directed to this page after clicking the option given on login page. This page is the forgot password page which can be used by user to set the new password.
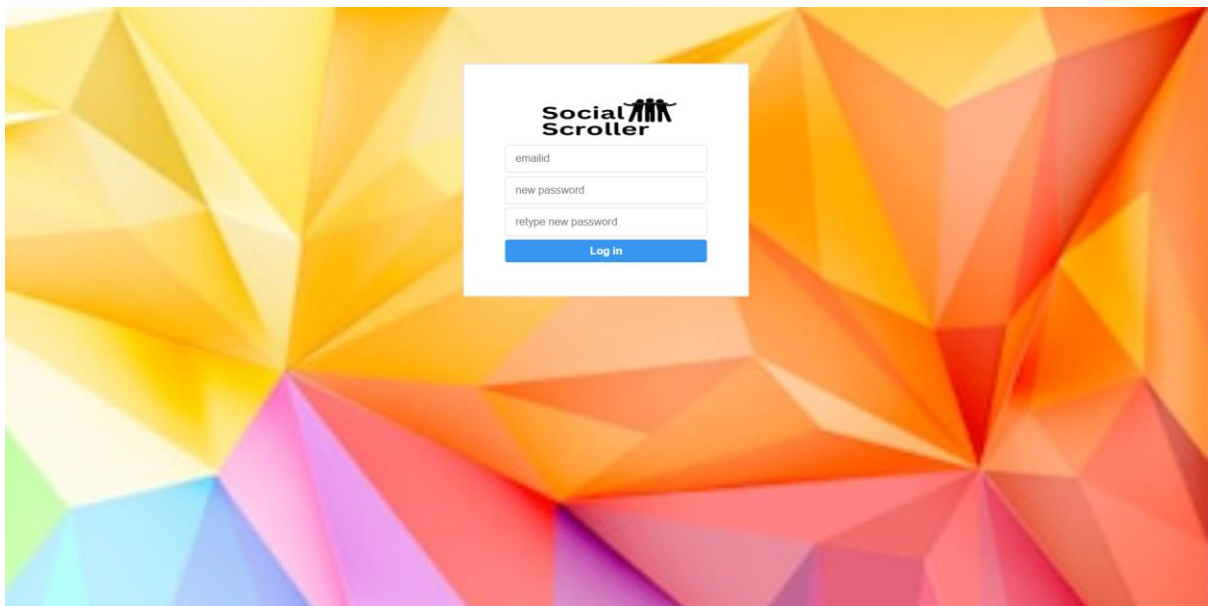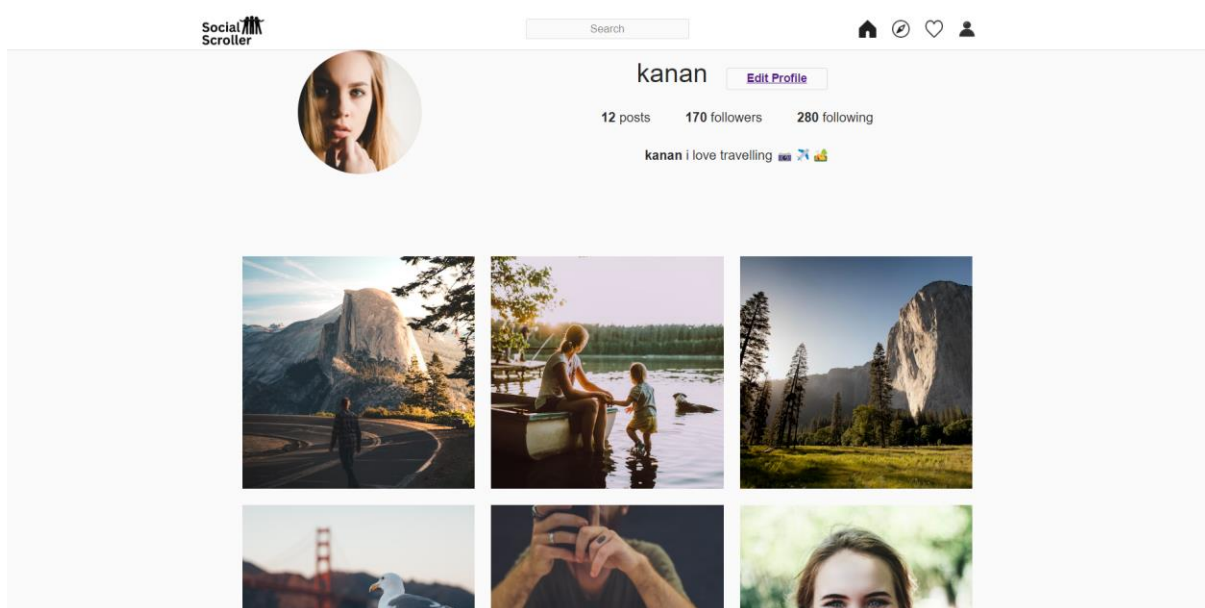
Fig 3: Home Page

This page is the home page, user will be directed to this page after loging-in. On this page the user is given option to view and like photos , also access their profile page.
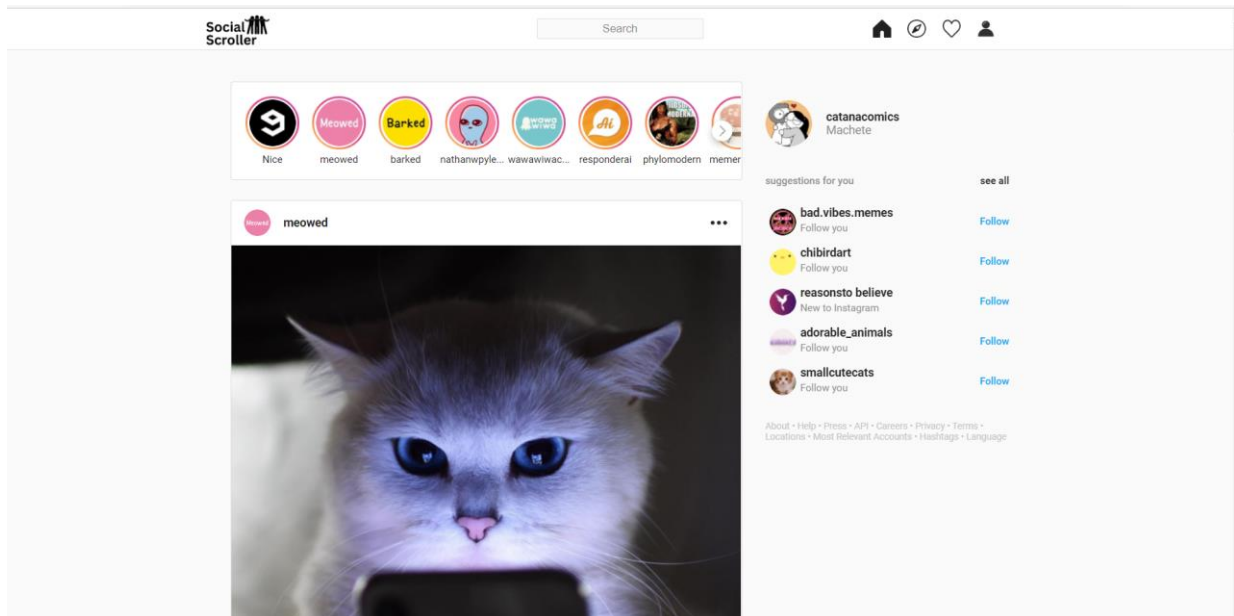
Fig 4: Profile Page

This page is the profile page of the user on which the user is given facility to post their photos and also edit their profile using edit profile option.

Fig 5: Edit profile Page

This is the edit profile page on which the user can edit his or her information and also edit their profile image.

Chapter 10

Conclusion and Future Scope

Social media is a service where people can communicate with each other. Social Scroller is unique from other photo sharing and social networking sites because of its technology. Social Scroller allow users to connect and interact with each other and share their experiences, activities and passions. Social Scroller has more opportunities to generate revenue through advertisements. Like other social media apps, Social Scroller can also like and comment on the posts by using like and comment button. There is a wide range of uses for social media and apps, so people of all ages and from all over the world use it. It can be very good for self-development if used wisely.

Future Scope:

- The user will be able to compress his or her photos before posting.
- The user will be given option to change the background of the photos.
- The user will be able to create their own content.

References:

- [Instagram Clone using HTML & CSS - GeeksforGeeks](#)
- [Instagram Clone Using HTML & CSS (codewithrandom.com)](#)
- [How to make instagram clone using HTML, CSS. Fully responsive. - DEV Community](#)
- Research in the Instagram Context: Approaches and Methods
- What We Instagram: A First Analysis of Instagram Photo Content and User Types Yuheng Hu Lydia Manikonda Subbarao Kambhampati
- In a World of Social Media: A Case Study Analysis of Instagram