Mini Project

MITRO

(Instagram Clone)

Mid Term Report

Department of Computer Engineering &Application

Institute of Engineering & Technology

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Abstract

The Project that we are making is more of a skill gaining work by which we are seeking to learn different technologies and prospects of developing any software or application. Basically, we are going through each and every step so that in future we can easily make our own app by the knowledge and experience gain by this. MITRO is a ready to use social media software solution which caters to the general users, Influencers, Celebrities and well as Business Profiles. The report presents the three tasks that is being in continuation during college time at GLA University which are listed below:

1. Understanding of the Problem objective & implication.
2. Understanding of the data & building of the model.
3. Evaluation of the model.

All these tasks have been completed successfully and results were according to expectations. All the tasks were need very systematic approach, starting from the collection of the data to the implementation of the solution and till evaluation of the System. The most challenging task was the domain knowledge, to understand the language. It is one of the major areas and really need very fundamental and conceptual knowledge of HTML, CSS, JavaScript, and Node.JS.

Introduction

1.1 General Introduction to the topic

Mitro is basically an social networking application which 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.

As with other social networking platforms, Mitro users can like, comment on and bookmark others' posts, as well as send private messages to their friends via the Instagram Direct feature. Photos can be shared on one or several other social media sites -- including Twitter, Facebook and Tumblr -- with a single click.

Mitro 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.

1.2 Area of Computer Science

To create a Social Networking platform, one needs to employ people capable of doing systems analysis and design. Once a satisfactory design has been developed, one needs software engineering to build the system. Once the system is built, it needs to be tested and deployed, and then maintained. That again falls into the realm of software engineering.

Software engineering encompasses other specialized roles that include such things as quality assurance, database design, user interface design, etc. Operational computer systems are also supported by roles such as Computer Operations.

An alternative to designing and building a networking platform is to buy a commercially available system that has been designed to satisfy the general requirements for a user. The system would likely require some customization, which again falls into the realm of software engineering.

The only thing computer science has to do with all this is that it provides the theoretical underpinnings of the software engineering — just as physics provides the theoretical underpinnings to building a safe bridge. But physicists don't build bridges — bridge engineers build bridges.

1.2 Hardware and Software Requirements

A) Hardware Requirements (Minimum):

The most common set of requirements defined by any operating system or software application is the physical computer resources, also known as hardware. A hardware requirements list is often accompanied by a hardware compatibility list (HCL), especially in case of operating systems. An HCL lists tested, compatibility and sometimes incompatible hardware devices for a particular operating system or application. The following sub-sections discuss the various aspects of hardware requirements.

1. i3 processor-based computer
2. 4GB Ram
3. 25 GB Hard Disk Space

B) Software Requirements (Minimum):

Software Requirements deal with defining software resource requirements and pre-requisites that need to be installed on a computer to provide optimal functioning of an application. These requirements or pre-requisites are generally not included in the software installation package and need to be installed separately before the software is installed.

1. Windows 10 OS
2. Visual Studio
3. GitHub
4. Web Browser
5. React
6. MySQL Lite
7. Node JS

Problem Statement

We define social network sites as web - based services that allow individuals to construct a public or semi - public profile within a bounded system , articulate a list of other users with whom they share a connection and view wand traverse their list of connections and those made by others in a system .

Social networking sites are not only for you to communicate or interact with other people globally but, this is also one effective way for business promotion . A lot of business minded people these days are doing business online and use these social networking sites to respond to customer queries. It isn't just a social media site used to socialize with your friend but also , represents a huge pool of information from day to day living.

Objective: -

A complete Social Networking website will be developed based on Semantic Web Service - oriented model which will have following features.

- To have attractive and Secure Login page to access
- Make new user account in more user friendly and proper validation of details
- Search People easily on entire network
- Creating a public profile having social, professional and personal information
- Ease of editing of profile anytime
- Trust and authentication of user by viewing his profile
- Chat with Online Friends
- Upload and Share Images on network
- Administration page to keep eye on user operation
- Easily password recovery processing

Registered Users can create their profile which will contain their details such as interests etc.

- Login, Signup, Quick Login (this means app remembers that you had logged in, so you only have to enter password to login again).
- AJAX used almost everywhere (From login to logout) Follow, Unfollow, Recommend, Profile views, Block, Unblock.
- Like, Comment (Sticker, Text, Image), Share, remove share,
- Tag, remove tag, copy post link, delete post, Edit post, Open post.
- Post Text, Image (with filters), Video, Audio, Link, Document,
- Location with emojis, Font size, Tag, mentions, hashtags and location.
- Edit your profile (From username, Bio, social links to tags).
- Explore people, photos, videos, audios and groups.
- Message emoji, Text, Image, Sticker.
- Delete conversation, unsend all your messages, edit conversation
- title and get all info about the conversation.
- Create a group with your followings.
- Add/remove members.
- Edit group's settings.
- Change your password.
- Change account type private or public (Default: public).
- Change email and phone visibility.
- Get all your login details

Scope of the Project: -

Social Networking site is an online community designed to make social life of people more active and stimulating. The social network can help you to maintain existing relationships with peoples and share pictures and messages, and establish new ones by reaching out to people you've never met before.

This website also provides the features of E- classified all at one place. The main idea behind site is to share your thoughts with all your friends which can be read by all the users using the website. This site can be handled by the user as he wants for example adding videos and photos also. This website enhances Advertisement of products. People using this website can buy sell products from this site . The main function behind this advertisement function is to help people to buy products which are trusted in a circle.

Modules:

The entire project mainly consists of 4 modules, which are-

1. Admin
2. Login
3. User
4. Instant Chat

1. Admin module:

- Signup their account.
- Login (No approval required)
- Can register / view / approve / reject (approve those user who request access)
- Can operate whole app significantly
- Admin can handle all access regarding the users
- Can delete post if find anything irrelevant
- Can delete user account if doing anything suspicious

2. Login:

- Can login or signup through email or phone number.
- Can set the username
- Can set the password

3. User:

- Access account by entering id and password
- Can set their profile picture
- Can check other people profiles and news feed
- Can follow the social influencers, their friends, pages etc.
- Can block other user if misbehaving
- Can private their account

4. Instant Chat:

- Can message someone directly if they know the other user
- Can send images directly
- Can send other peoples feed or picture though message

Design

INTRODUCTION TO UML: UML Design

The Unified Modelling Language (UML) is a standard language for specifying, visualizing, constructing, and documenting the software system and its components. It is a graphical language, which provides a vocabulary and set of semantics and rules. The UML focuses on the conceptual and physical representation of the system. It captures the decisions and understandings about systems that must be constructed. It is used to understand, design, configure, maintain, and control information about the systems.

The UML is a language for: Visualizing Specifying Constructing Documenting

Visualizing

Through UML we see or visualize an existing system and ultimately, we visualize how the system is going to be after implementation. Unless we think, we cannot implement. UML helps to visualize, how the components of the system communicate and interact with each other.

Specifying

Specifying means building, models that are precise, unambiguous and complete UML addresses the specification of all the important analysis design, implementation decisions that must be made in developing and deploying a software system.

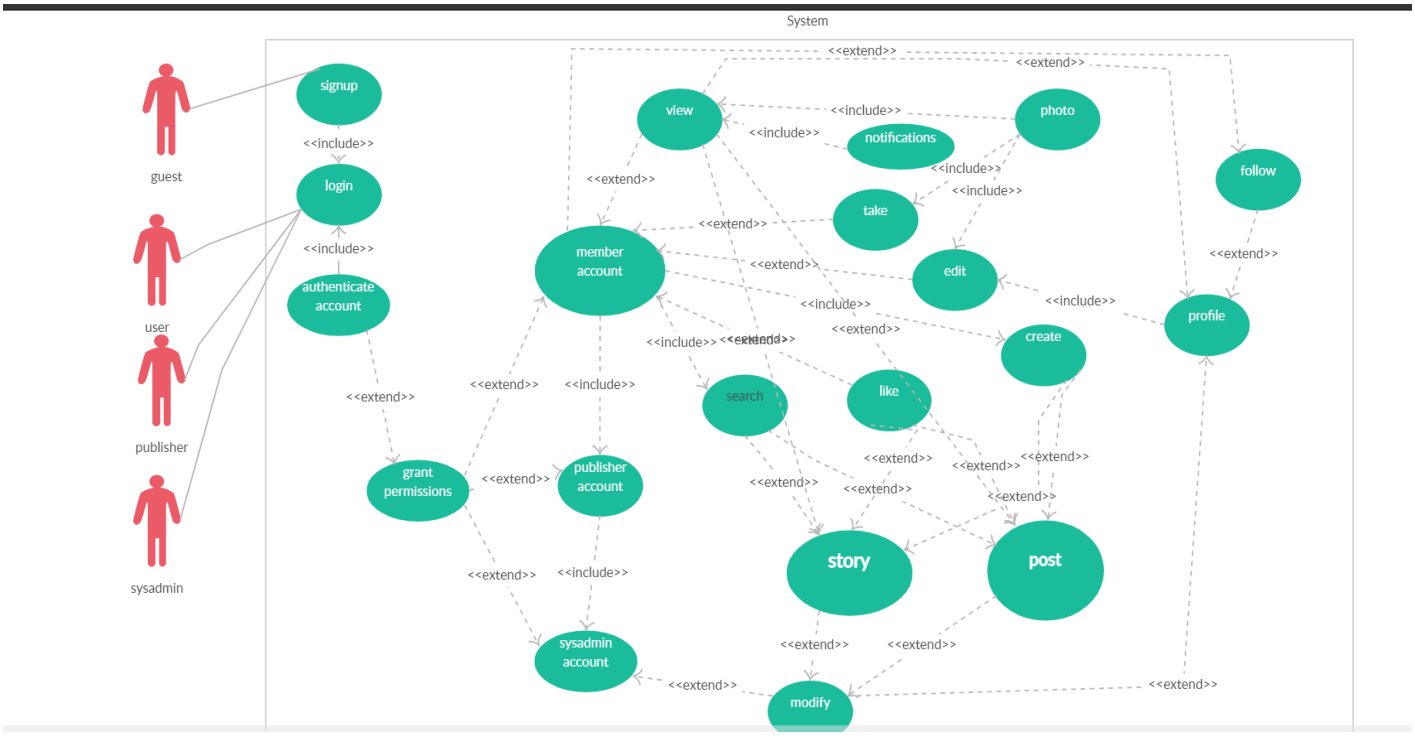
Constructing

UML models can be directly connected to a variety of programming language through mapping a model from UML to a programming language like JAVA or C++ or VB. Forward Engineering and Reverse Engineering is possible through UML.

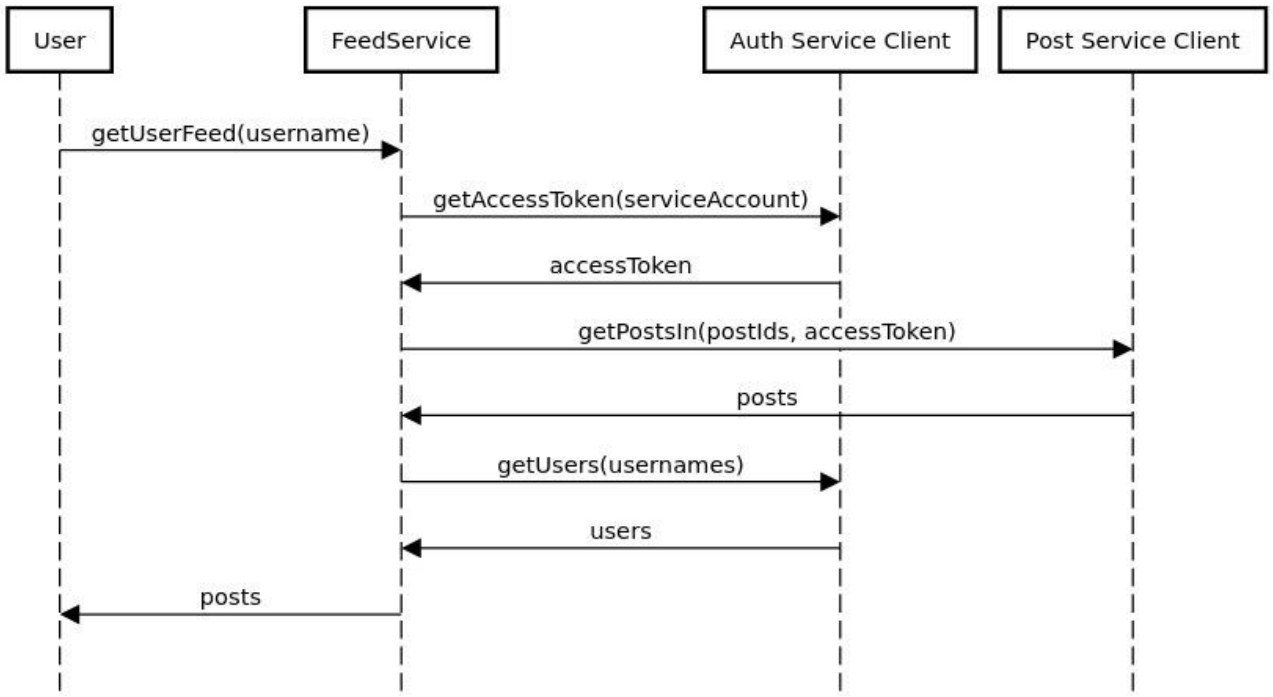
Documenting

The Deliverables of a project apart from coding are some Artifacts, which are critical in controlling, measuring and communicating about a system during its developing requirements, architecture, desire, source code, project plans, tests, prototypes releasers, etc.

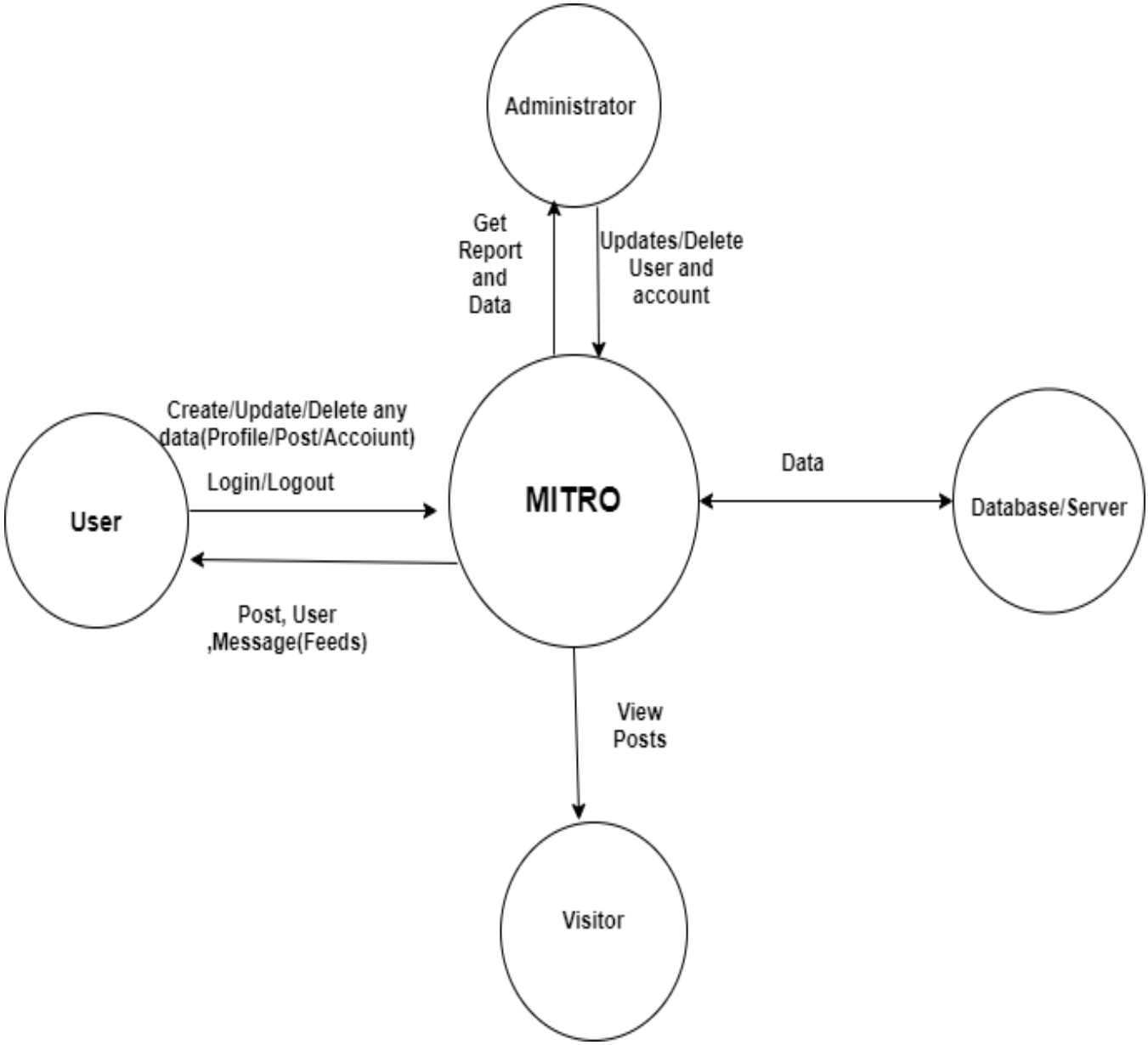
Use Case Diagram



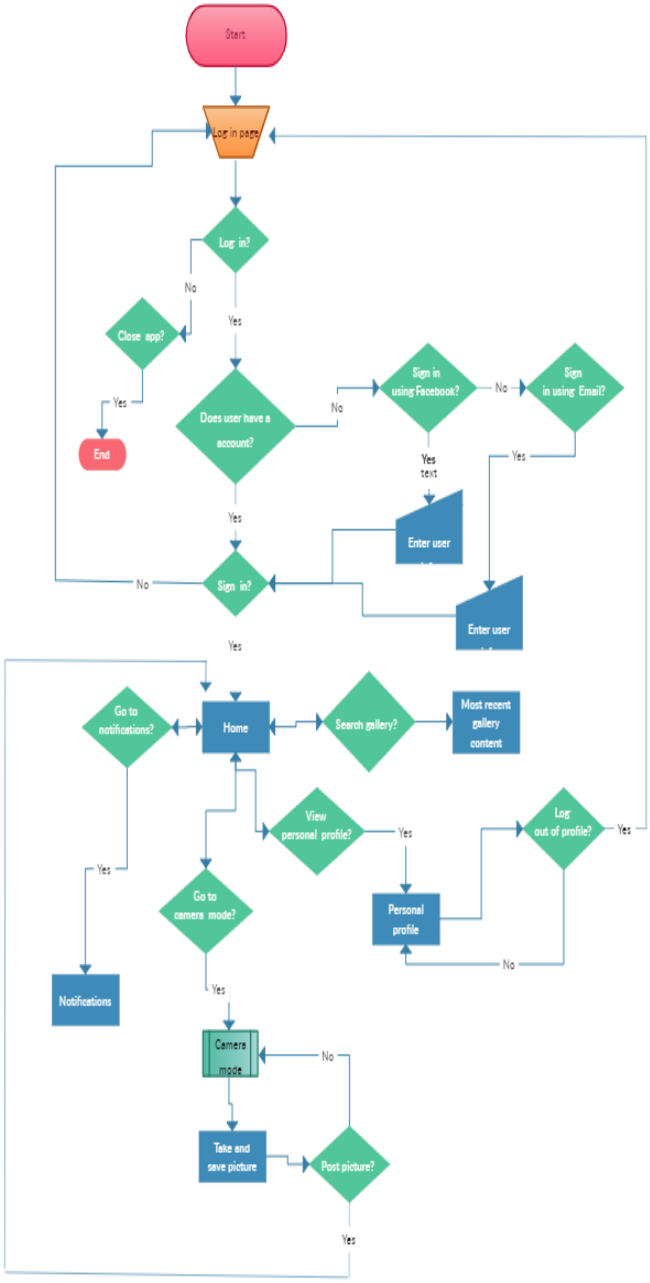
Sequence Diagram



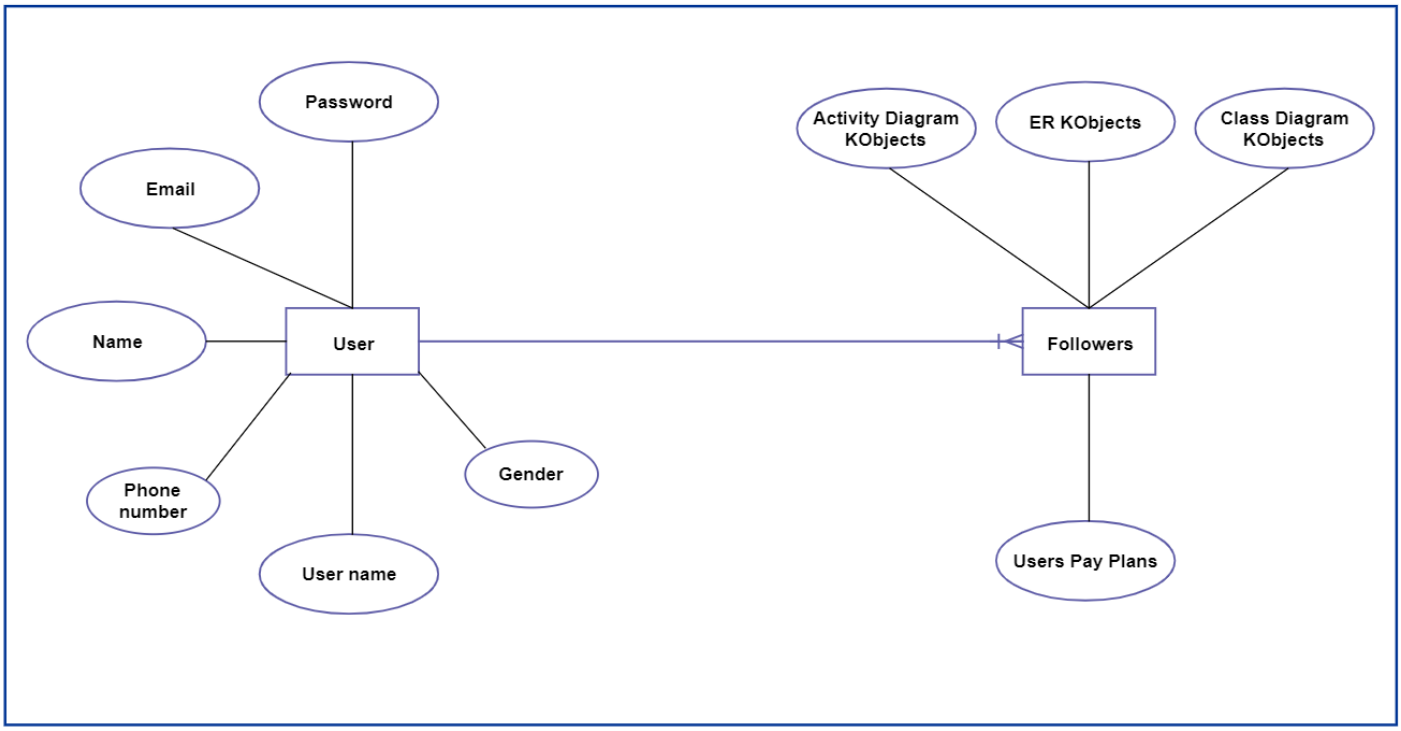
5. 0-Level DFD


Administrator
Get Report and Data
Updates/Delete User and account
Create/Update/Delete any data(Profile/Post/Accoiunt)
Login/Logout
User
MITRO
Data
Database/Server
Post, User ,Message(Feeds)
View Posts
Visitor

1-Level DFD


Start
Log in page
Log in?
No
Yes
Close app?
Yes
End
Does user have a account?
No
Sign in using Facebook?
No
Sign in using Email?
Yes
text
Yes
Enter user
Yes
Sign in?
No
Enter user
Yes
Go to notifications?
Home
Search gallery?
Most recent gallery content
View personal profile?
Yes
Log out of profile?
Yes
Yes
Go to camera mode?
Personal profile
No
Notifications
Yes
Camera mode
No
Take and save picture
Post picture?
Yes

ER Diagram


Password
Email
Name
User
Phone number
User name
Gender
Activity Diagram KObjects
ER KObjects
Class Diagram KObjects
Followers
Users Pay Plans

Progress till Date & The Remaining work

Project Ideation	**Done**
Synopsis	**Done**
Technologies to Learn	**Done**
UML Diagram	**Done**
Mid Term Report	**Done**
Coding	**Not Done**
Testing and Implementation	**Not Done**
Final Report	**Not Done**