POLY COMMUNITY

A PROJECT REPORT

Submitted By

Rutwik Brahmbhatt.(36003)

Kunal Chatrapati.(36005)

Vishesh Makwana.(36011)

Bhavy Upadhyay.(36033)

In partial fulfillment for the award of

DIPLOMA IN COMPUTER ENGINEERING

Computer Engineering (HPP)

Polytechnic

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Year 2015-2016

CERTIFICATE

This is to certify that the Project entitled **POLY COMMUNITY** has been carried out by **VSHESH MAKWANA(R3543), RUTWIK BHRAHMBHATT(345345), BHAVY UPDHAYAY(435343), KUNAL CHATTRAPATI(43534)** under the guidance of **MS. NISHA RANA and MS. RUCHITA TAILOR** in the partial fulfillment of the Diploma in Computer Engineering (Final Semester), Polytechnic, The Maharaja Sayajirao University of Baroda, Vadodara, during the academic year **2017-18.**

Guide:

Ms. Nisha Rana
Ms. Ruchita Tailor
Computer Engineering (HPP)
Polytechnic,
The Maharaja Sayajirao University of Baroda.

Dr. Dharmistha Vishwakarma
Asstt. Program Coordinator
Computer Engineering (HPP)
Polytechnic,
The Maharaja Sayajirao University of Baroda.

ACKNOWLEDGEMENT

We take this opportunity to express our profound sense of gratitude and respect to all those who helped us throughout the duration of this project**.**

Not only have our efforts leaded us to the successful completion of the project work, but also the support from other people has helped us to reach at this stage. So, with great pleasure we take this opportunity to express our gratitude towards all who have directly and indirectly contributed to this project and helped it making a great success.

Firstly, we are extremely grateful to Maharaja Sayajirao University Polytechnic, Vadodara providing us the excellent working environment to undergo our project.

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Last, but not the least, we would like to extend our profound thanks to all our esteemed colleagues and friends at college level who helped us in the specific areas of this project.

Abstract

Poly Community is a community-level mobile application. The basic idea behind the application is to bring only the students of the college as a community to one place to socialize and to know each other in a more aligned way. It keeps the college students updated about upcoming events. It also removes the request or follows barrier between the students of the college. The post or update by the student will be available for the amount of time only which makes the news feed section fresher. There is also a feed wall that filters field classmates in one place. The teachers will also be able to post any updates regarding exams or some other events which would be posted on the wall and can be viewed by the students. The evolution of communities is very much important creating a small world and bringing the youngsters to close without any barriers.

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CHAPTER 1: INTRODUCTION

1.1 Problem Statement

The Problems faced by existing system are described as below:

In the current systems, any individual can make any number of accounts using his/her multiple email ids and even phone numbers .It becomes hard to identify which are the real accounts. This in turns increases useless crowd.

As the current social media contains the crowd that includes the potentially entire globe, it is hard to keep our valuable and personal data private. Also there will be intruders from all around the globe to get access to your personal details.

The contents in the current social media are inappropriate. Most of the contents are irrelevant to the user which user never attracted or wanted. Also the existing contents are either not true or just uploaded in spite of the user's knowledge of it being not true to get attention or so. Many contents are not appropriate for the students. Users are not able to see the feeds of their interest.

As the entire globe is potential user of the current system, handling such large databases requires skilled and vast amount of man power. Also retrieving the details of the particular user takes a lot of time. Handling such large databases requires higher efficiency computers which in turn increases the costing of the system.

1.2 Motivation

Irrelevant Crowd

In the present scenario, the crowd that comes across us are mostly not even related to us In any possible ways

Junk Feeds

Most of the contents that are present in other social media is either junk or old. They are needed to be regulated and updated with respect to current affairs.

Improvement in Social Life

Since more people of the same college will be able to come close, it will help build a better social life for each individual.

1.3 Objective

Well Formed Community.

As the user will sign-up, he/she will enter its already formed community which will contain only the necessary people e.g. students only from his/her college.

Communication.

With the facility to communicate with each registered individual, students will be able to contact other students and exchange information via text.

Study Material Access.

Registered faculty will be able to upload files related to study which the students can download from their feed.

Event's Information.

Ongoing events of the college can be added by the admin or the registered faculty so that students can stay aware about the events in his/her college.

1.4 Scope of Project

The proposed system can be expanded to any number of colleges across the globe. The system has scope to be implemented widely as the students will be able to come close the their colleagues & also the provision of study materials directly via the teaching staff will help students get the notes easily.

As there will be regular admissions in any particular college, it will ensure the registration of that amount of user in the system, which in turn will ensure the regular registration of people into the system. The Poly Community has a wide scope for its implementation.

CHAPTER 2: SYSTEM REQUIREMENTS

2.1 Hardware Requirements

- Android based mobile device supporting version 4.4 (KitKat) or higher
- 1 GHz processor
- ROM:8 GB
- RAM: 512 MB

2.2 Software Requirements

Android Studio: Android Studio is the official Integrated Development Environment for Android application development. Android Studio offers:

Flexible Gradle-based build system

Build variants and multiple APK file generation

Code templates to help you build common app features

Rich layout editor with support for drag and drop theme editing

Lint tools to catch performance, usability, version compatibility, and other problems and much more

Android Virtual Device: An Android Virtual Device (AVD) is an emulator configuration that allows the creation of applications by simulating the real device capabilities.
An AVD consists of:

- A hardware profile: Defines the hardware features of the virtual device. For example, you can define whether the device has a camera, whether it uses a physical QWERTY keyboard or a dialling pad, how much memory it has, and so on.
- A mapping to a system image: You can define what version of the Android platform will run on the virtual device. You can choose a version of the standard Android platform or the system image packaged with an SDK add-on their options: You can specify the emulator skin you want to use with the AVD, which lets you control the screen dimensions, appearance, and so on. You can also specify the emulated SD card to use with the AVD.

SDK: A software development kit (SDK) is typically a set of software development tools that allows the creation of applications for a certain software package, software framework, hardware platform, computer system, video game console, operating system or similar development platform. It may be something as simple as the implementation of one or more application programming interfaces (APIs) in the form of some libraries to interface to a particular programming language or to include sophisticated hardware that can communicate with a particular embedded system. Common tools include debugging facilities and other utilities, often presented in an integrated development environment (IDE). SDKs also frequently include sample code and supporting technical notes or other supporting documentation to help clarify points made by the primary reference material.

CHAPTER 3: SYSTEM ANALYSIS

3.1 Study of Current System

The scenario in the current system is that there are ample amount of accounts and feeds. There are more number of accounts than the already existing crowd. Creating new ids or even fake ids is relatively easy.

As there are lot of undesired contents and ids, it is difficult to show the users the content that they are supposed to see. This makes them come across lot of contents that they never wanted to see or called. Though there are privacy options, the basic information about anyone can be easily accessed and copied.

3.2 Study of Proposed System

The basic idea of the proposed system is to present the data in more aligned way so that user can see only the contents that are relevant to them. Students can only join the already formed community simply signing up. Once the student signs up for the poly community, he/she will be directly added to the community well, where they can see what others are up to also inform other members of the community what they are up to. This will greatly help improve student's social life.

3.3 Feasibility Study

Feasibility study of the system is a very important stage during system design. The main aim of the feasibility study is to determine whether developing the project is financially and technically feasible. The feasibility study involves analysis of the problem and collection of data which would be input to the system, the processing required to be carried out on these data, the output data required to be produced by the system, as well as study of various constraints on the behavior of the system.

Mainly following aspects are taken into this stage:

1. Operational Feasibility
2. Technical Feasibility
3. Economic Feasibility

3.3.1 Operational Feasibility:

Proposed Application will provide adequate throughput and all the necessary processing results. Operational feasibility with respect to our system is application should be Efficient, Economical & Controllable.

Operational feasibility measures how well the solution will work in the organization and how end-user feels about the system. Proposed system is helpful for the analyzing and decision making related to material requirement, conversations and reaching out to people.

3.3.2 Technical Feasibility:

For the design and development of the system, several software products have been accommodated.

Programming Language – Java

Android Studio-SQLite Database

This above application has the enough efficiency in producing the system. Also these software doesn't need high processing speed computers. They can be run on basic systems too. Therefore the project is technically feasible.

3.3.3 Economical Feasibility:

The system would be economically feasible, as it does not require any extra hardware or special software to implement it. The software required to build the application is available for free and doesn't require any license to install it. The project is based on internet so the end users who are going to use this Application does not require any extra software and hardware.

As development tools and other software are already available for free, there is not any burden of buying new system. The profit will be remarkable according to our team has seen as far as market concerned.

CHAPTER 4: SYSTEM DESIGN

4.1 Data Dictionary

Table 1: User

Description: This table contains the information of the user.

Table 4.1.1 user

Sr. No.	Column Name	Datatype	Size	Constraint	Description
1	U _ id	VARCHAR	20	Not null	This column contains Id of the user
2	U _ password	VARCHAR	20	Not null	This column contains Password of the user
3	U _ name	VARCHAR	20	Not null	This column contains
4	U _ prn	VARCHAR	20	Primary key	This column contains Prn of the user
5	U _ Branch	VARCHAR	20	Not Null	This column contains branch of the user
6	U _ Pic	BLOB	-	-	This column contains profile picture of user
7	U _ No	NUMBER	10	Not Null	This column contains contact of the user
8	U _ email	VARCHAR	30	Not Null	This column contains email of the user

Table 2: Admin

Description: This Table contains the information of the admin

Table 4.1.2 Admin

Sr. No.	Column Name	Datatype	Size	Constraint	Description
1	A _ password	VARCHAR	20	Not null	This column contains Password of the admin
2	A _ id	VARCHAR	20	Primary key	This column contains Id of the admin

Table 3: Faculty

Description: This Table contains the information of faculty

Table 4.1.3 faculty

Sr. no	Column Name	Datatype	Size	Constraint	Description
1	F _ id	VARCHAR	20	Primary key	This column contains Id of the faculty
2	F _ password	VARCHAR	20	Not null	This column contains Password of the faculty
3	F _ email	VARCHAR	20	Foreign key	This column contains email of the faculty
4	F _ name	VARCHAR	20	Not null	This column contains name of the faculty
5	F_branch	VARCHAR	20	Not Null	This column contains branch of the faculty

Table 4: Comment

Description: This Table contains the information of comment

Table 4.1.4 comment

Sr. no	Column Name	Datatype	Size	Constraint	Description
1	P _ id	VARCHAR	20	Foreign key	This column contains Id of the post
2	U _ id	VARCHAR	20	Foreign key	This column contains Id of user
3	Cm _ des	VARCHAR	20	Not null	This column contains Comment description
4	Cm_ id	VARCHAR	20	Primary key	This column contains Comment id

Table 5: Post

Description: This Table contains the information of post

Table 4.1.5 post

Sr.no	Column Name	Datatype	Size	Constraint	Description
1	P _ id	VARCHAR	20	Primary key	This column contains id of the post
2	U _ id	VARCHAR	20	Foreign key	This column contains id of the user
3	P _des	VARCHAR	20	Not null	This column contains description of the post

4.2 Data Flow Diagram

4.2.1 Zero level DFD

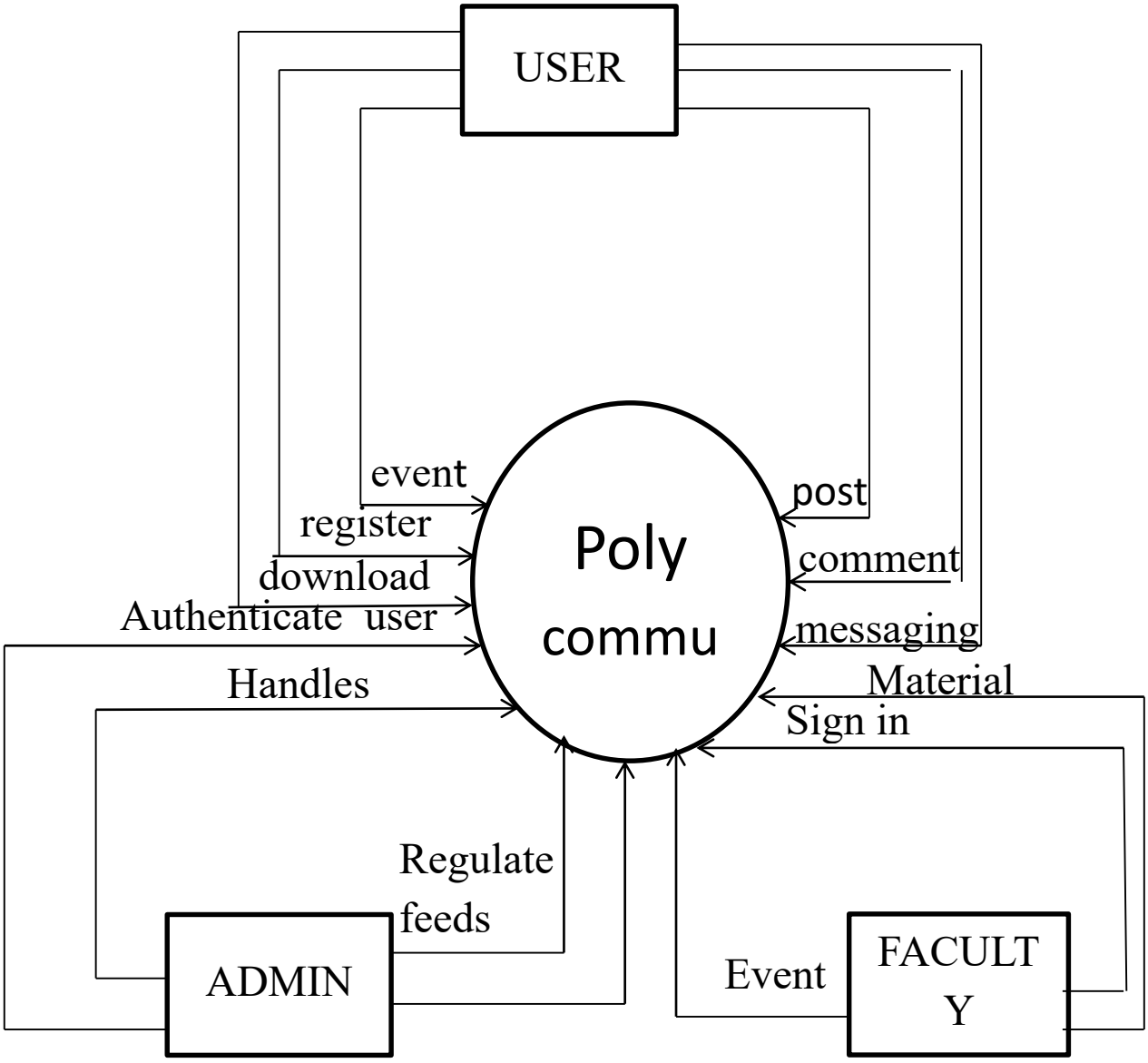


Figure 4.2.1. Zero Level DFD

4.2.2 FIRST LEVEL DFD

First Level DFD for User

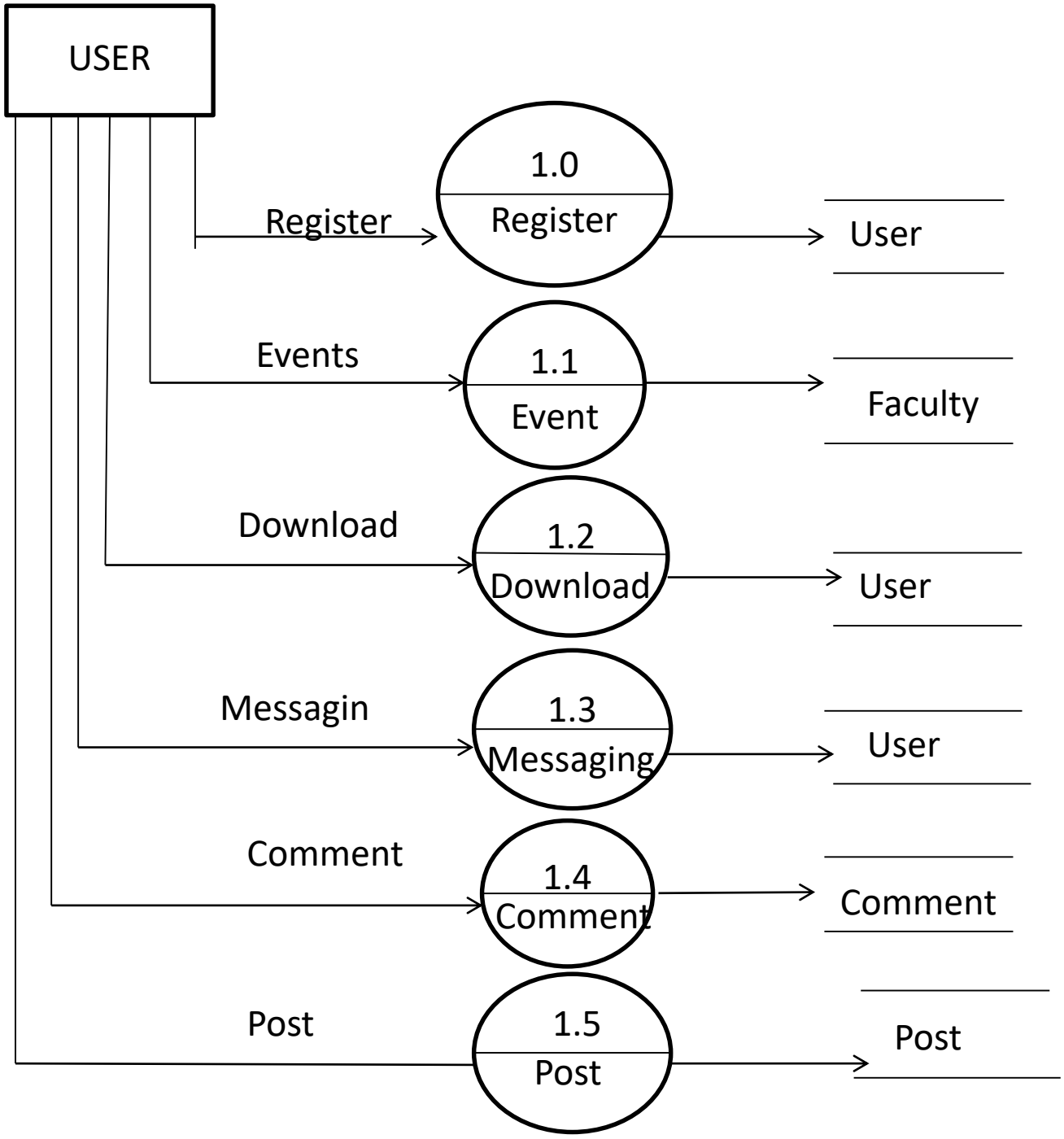
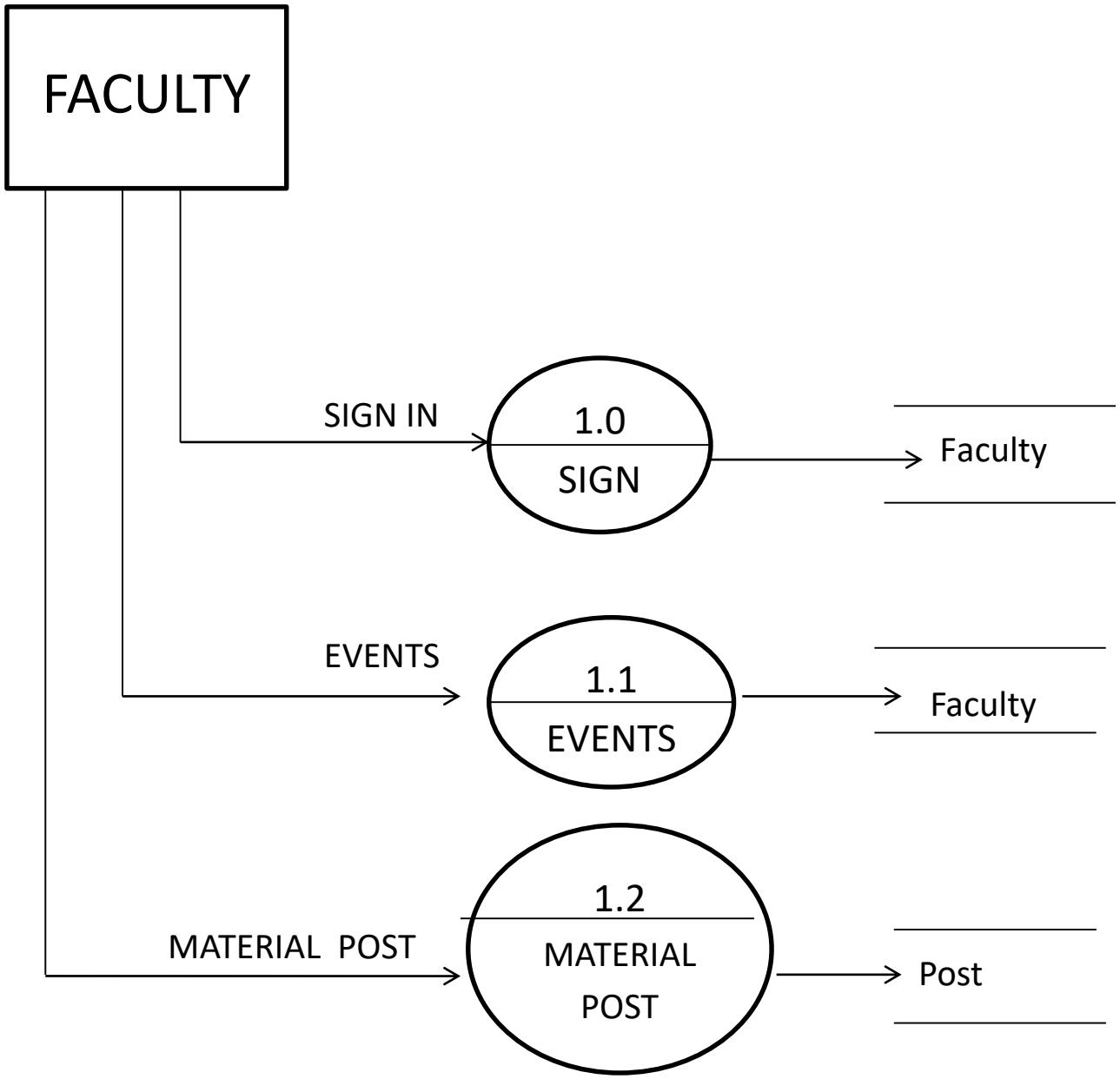


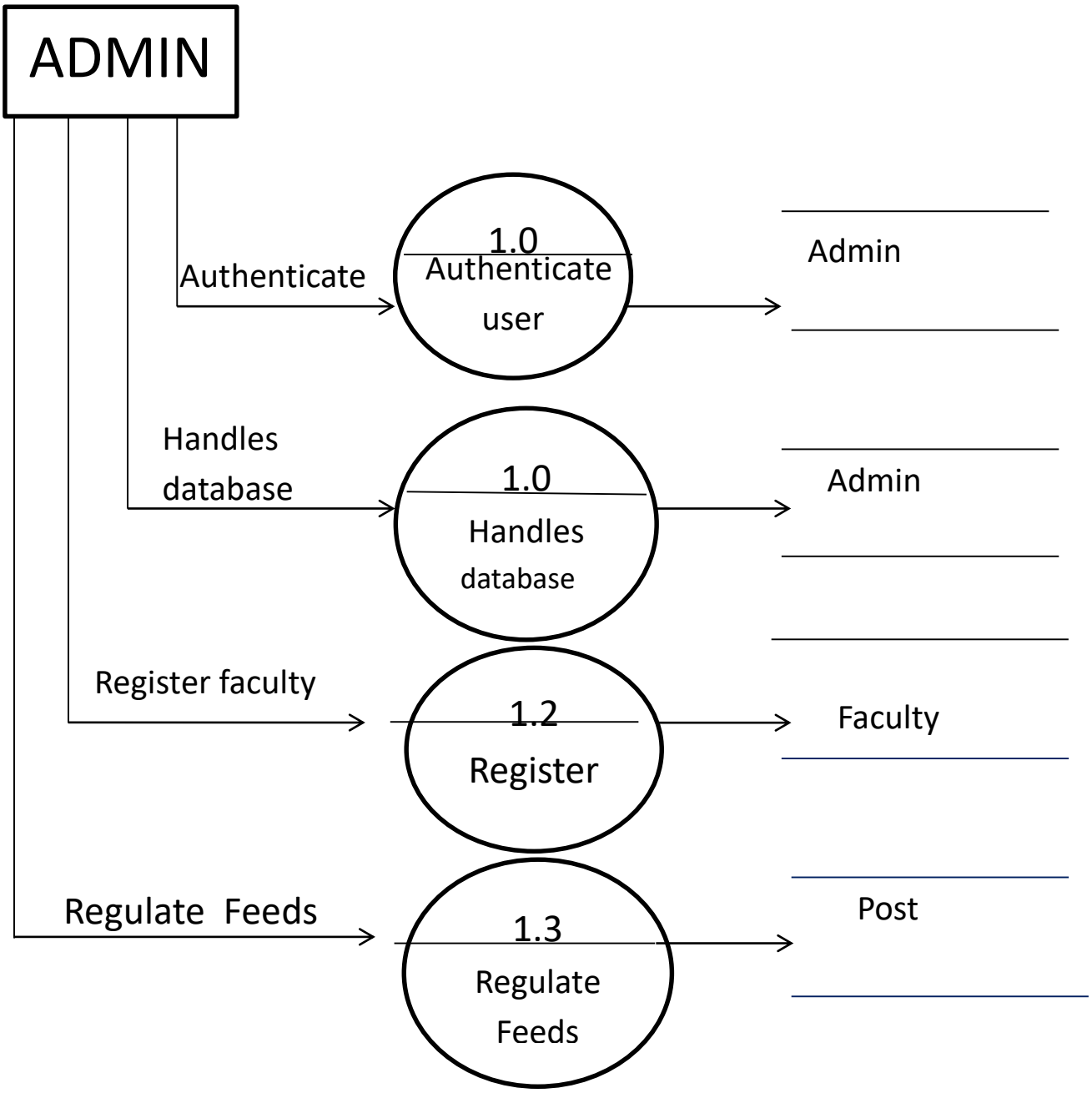
Figure 4.2.2. First Level DFD for User

First level DFD for Faculty



4.2.3. First level DFD for Faculty

First Level DFD for Admin



4.2.4. First Level DFD for Admin

4.3 ER (Entity Relationship Diagram)

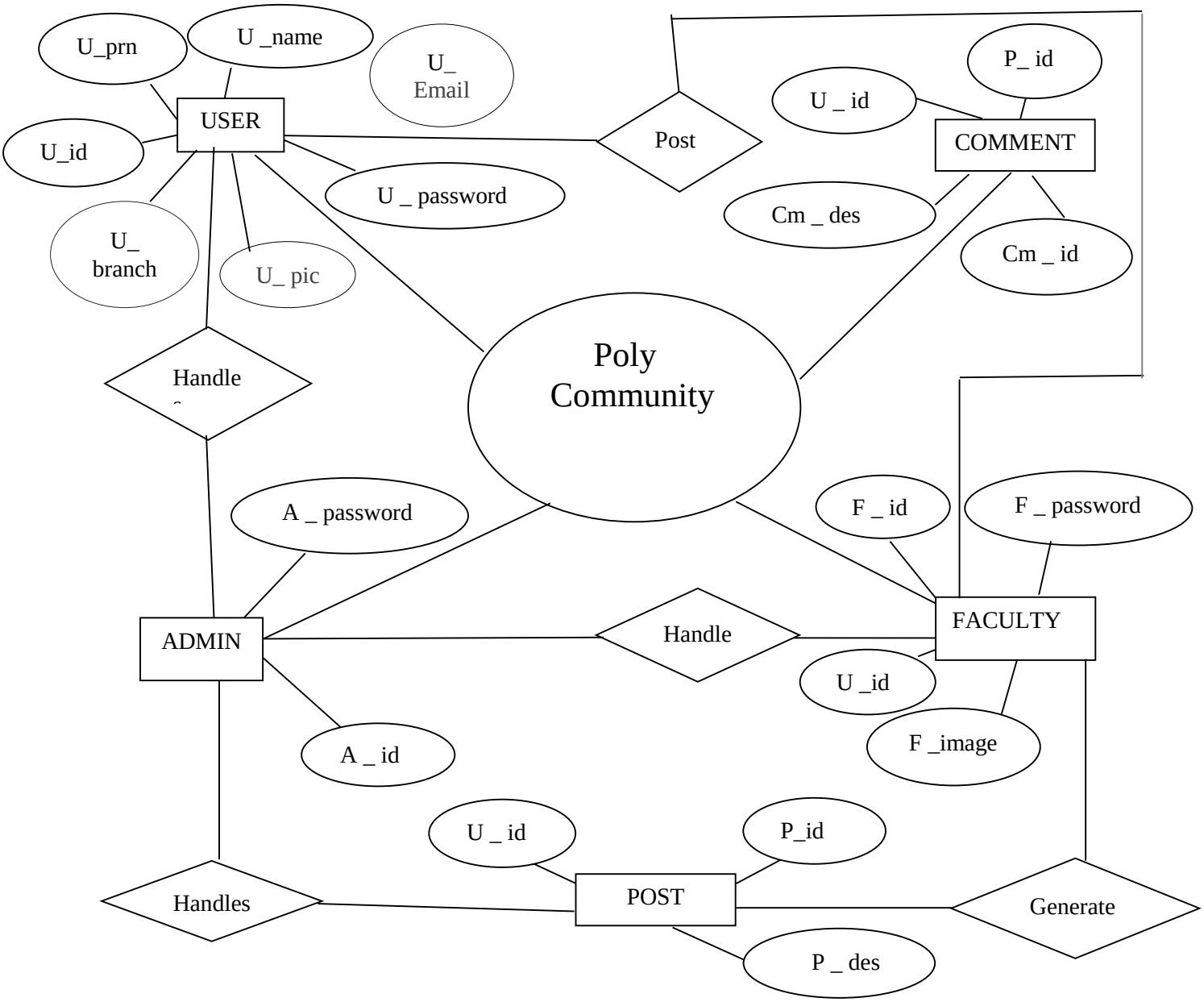


Figure 4.3 Entity Relationship Diagram

4.4 Use-case

The Use case diagram allows a designer to graphically show the use cases and the actors that use them. An actor is a role that a user plays in the system in an interaction between a user and a computer system (Use cases are about externally required functionality). A use case captures some user-visible function.

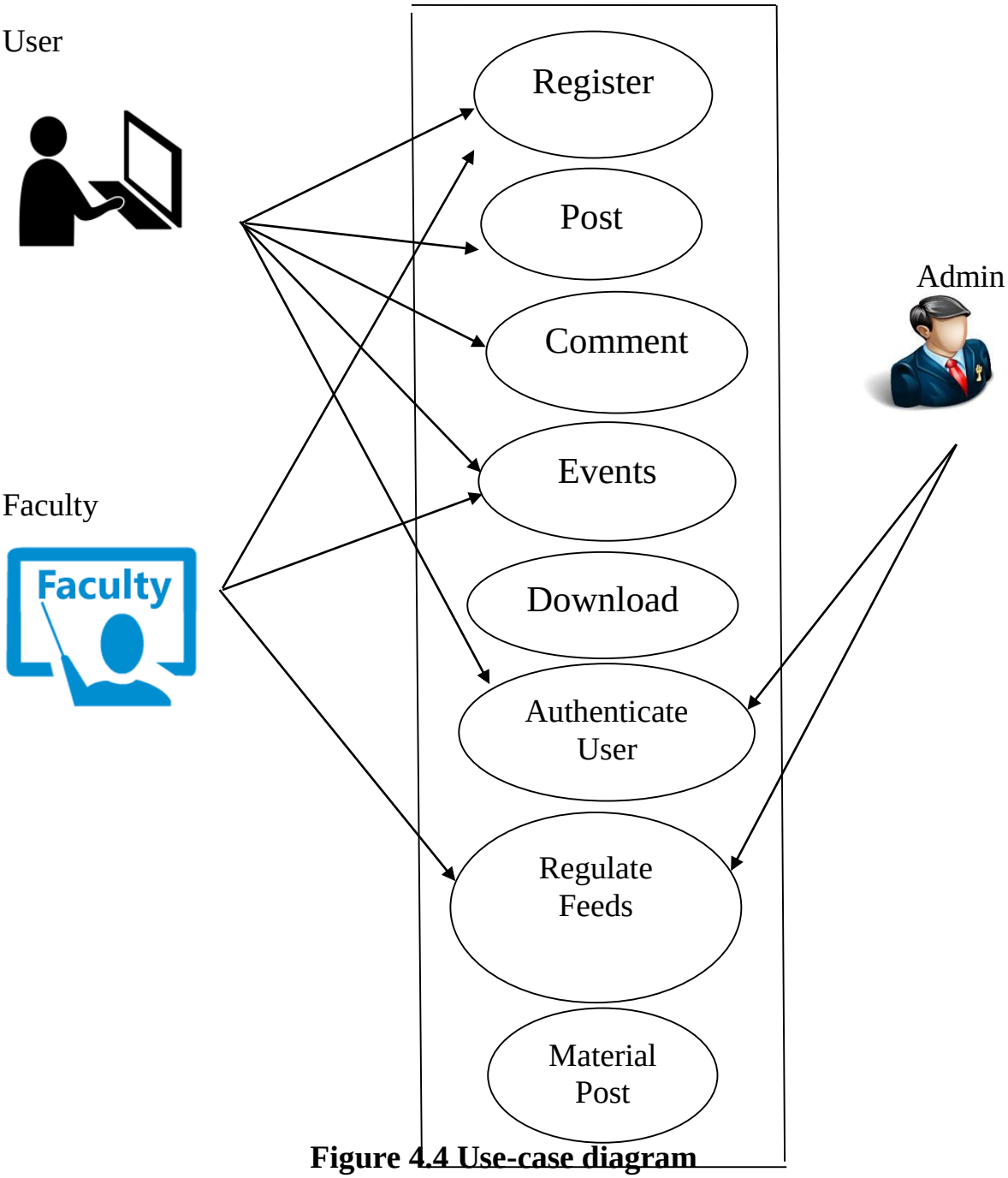
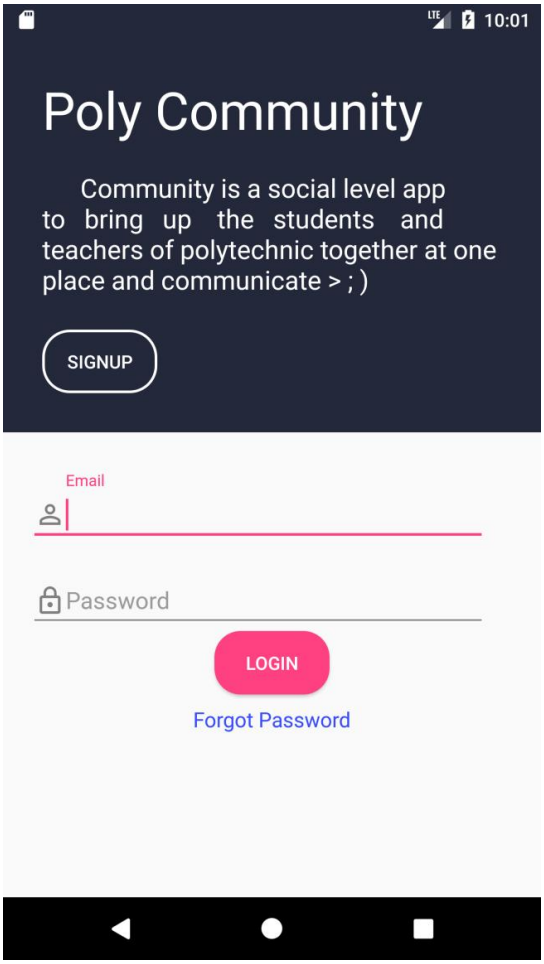


Figure 4.4 Use-case diagram

CHAPTER 5: IMPLIMENTATION

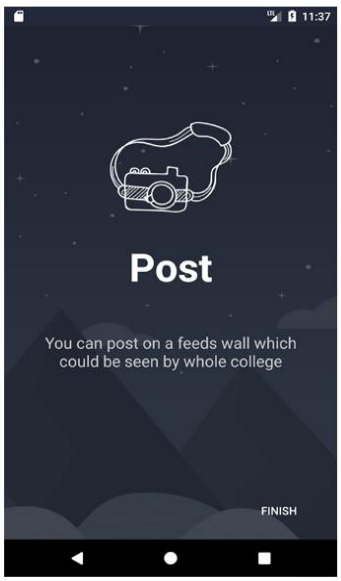
5.1 Splash Screen.

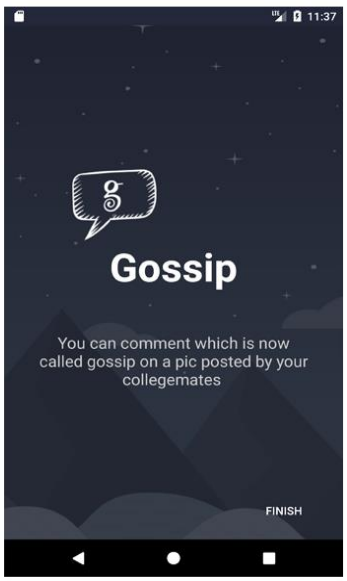
Description: When user opens the Application the first thing they see is Splash Screen. Splash screen contains the logo of the application

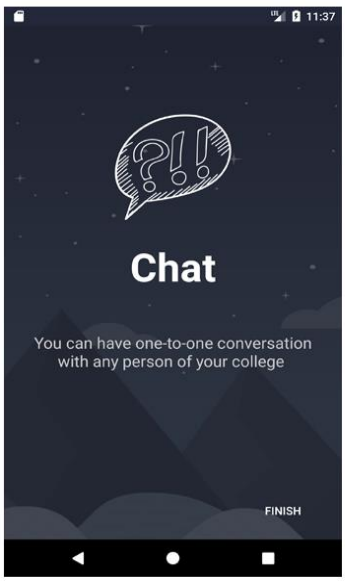


5.2. Login Screen

Description: The user, Faculty and Admin will be able to sign-in from this page

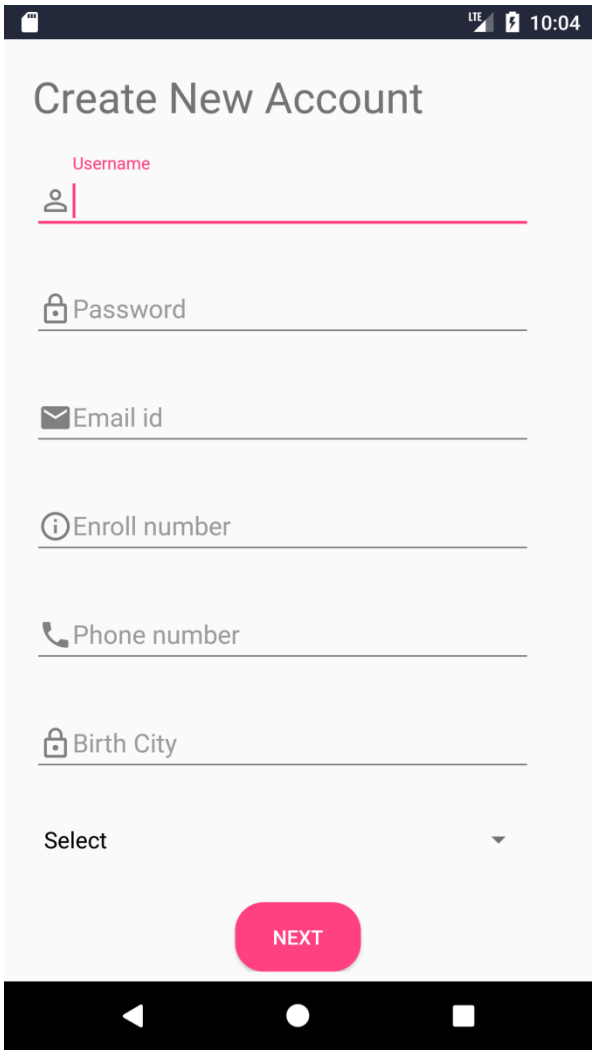






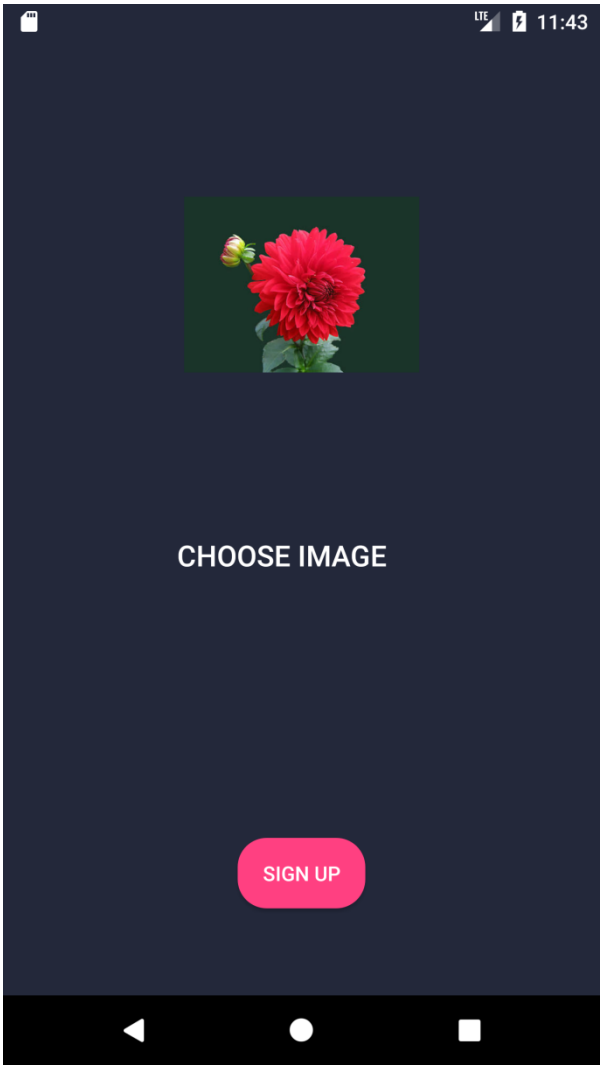
5.3. Introduction

Description: The introduction that is given when the user sign's up for the first time



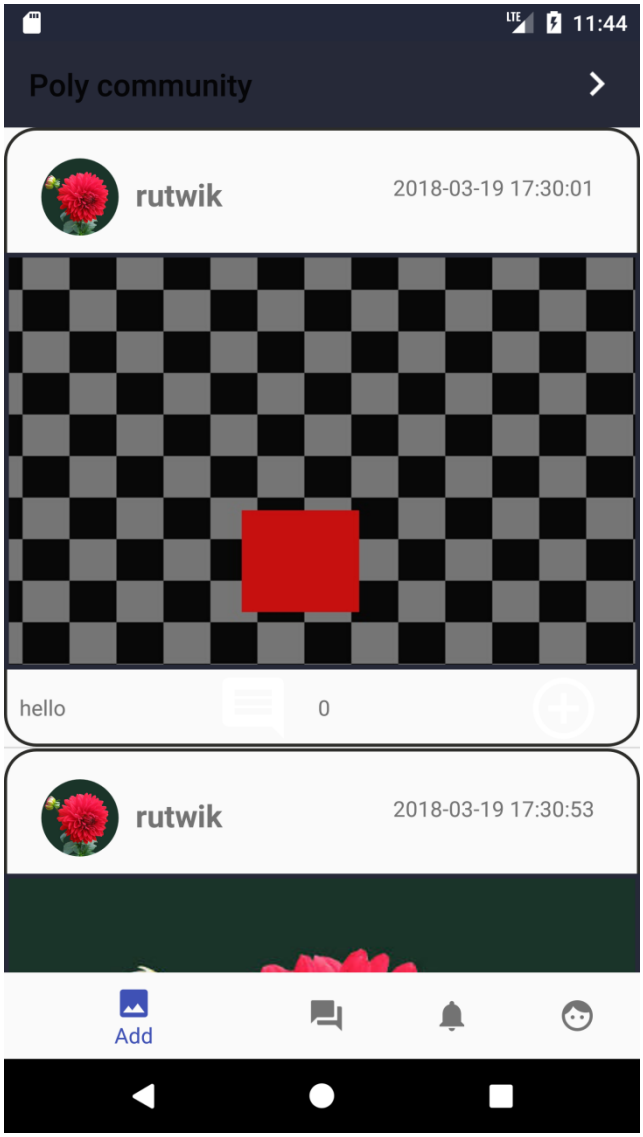
5.4. Sign-up Screen

Description: The user can fill the following sign-up form with proper details to join the Poly Community.



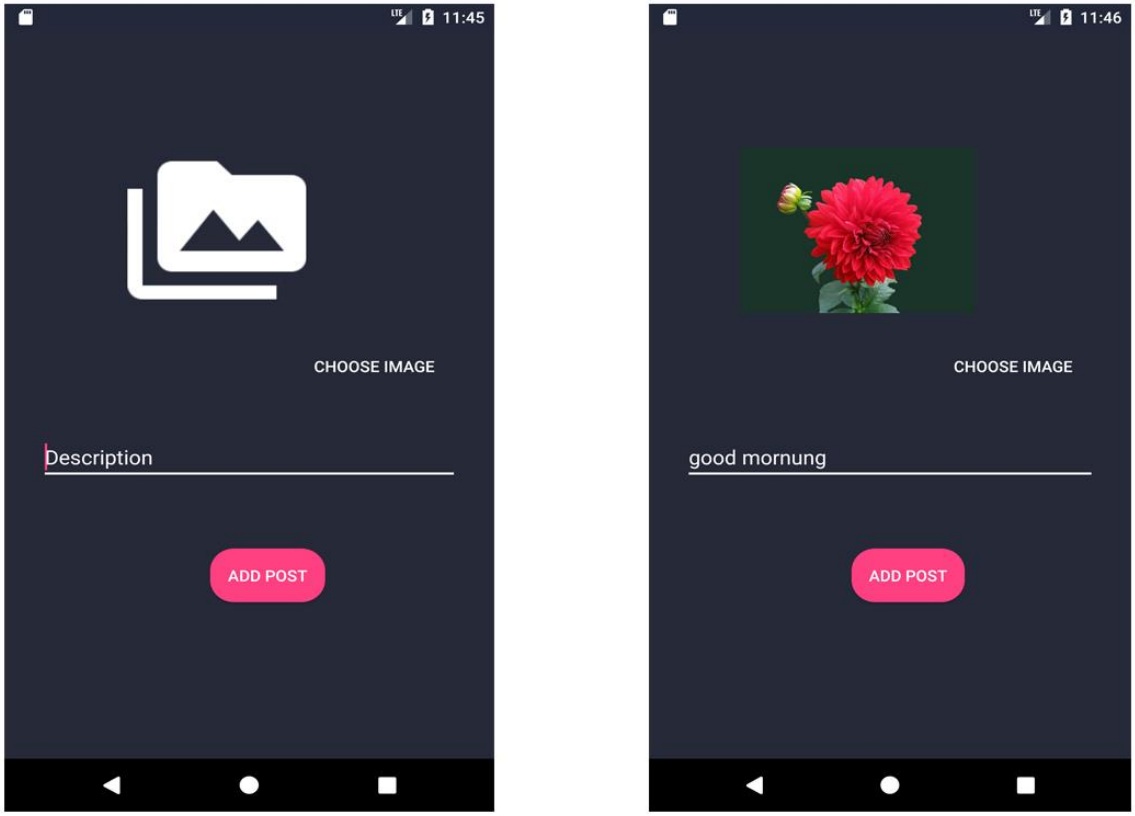
5.5. Profile Picture

Description: When the user successfully fills the sign-up form, he/she is asked to choose an optional profile picture.



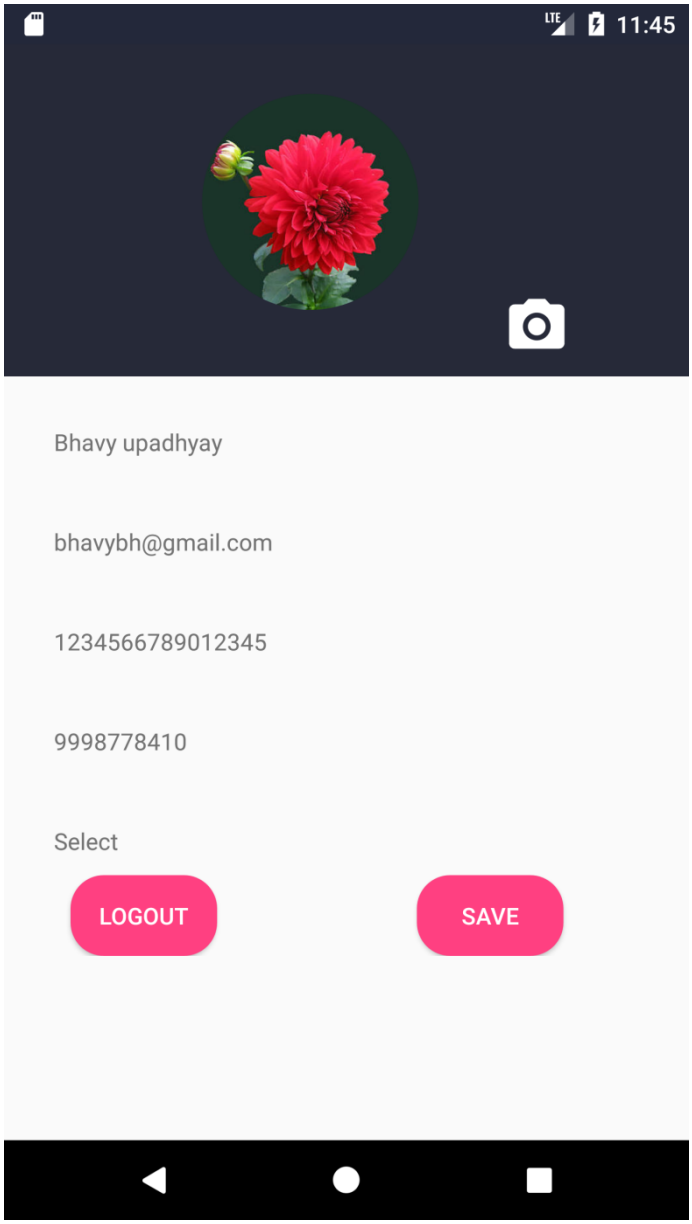
5.6. Community Wall.

Description: The community wall shows the posts that have been uploaded by the students(users).



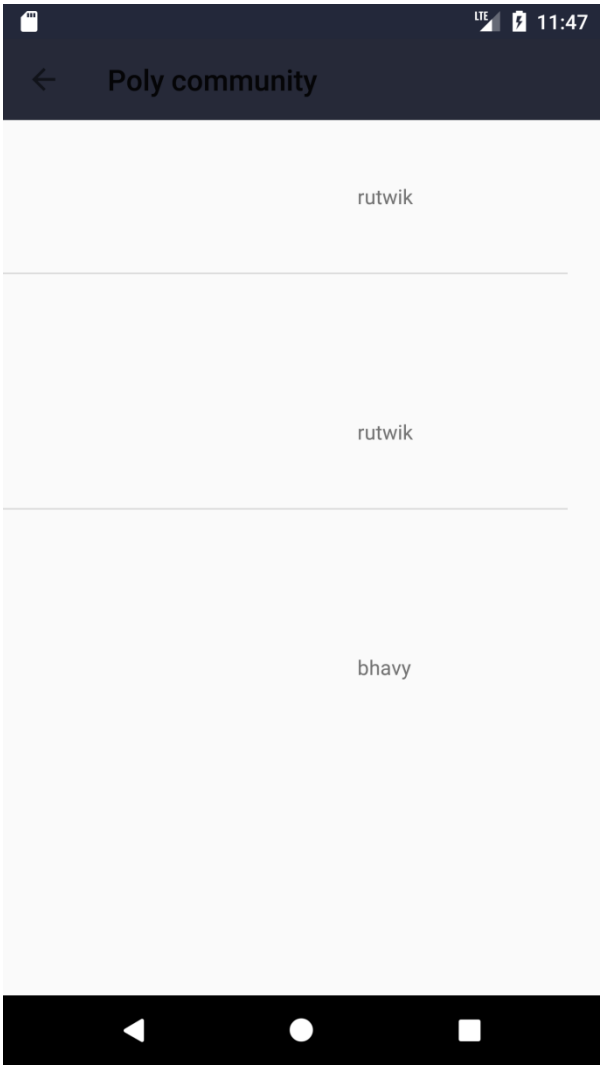
5.7 Adding post

Description: The user can add a post of his/her choice and can also include caption for it



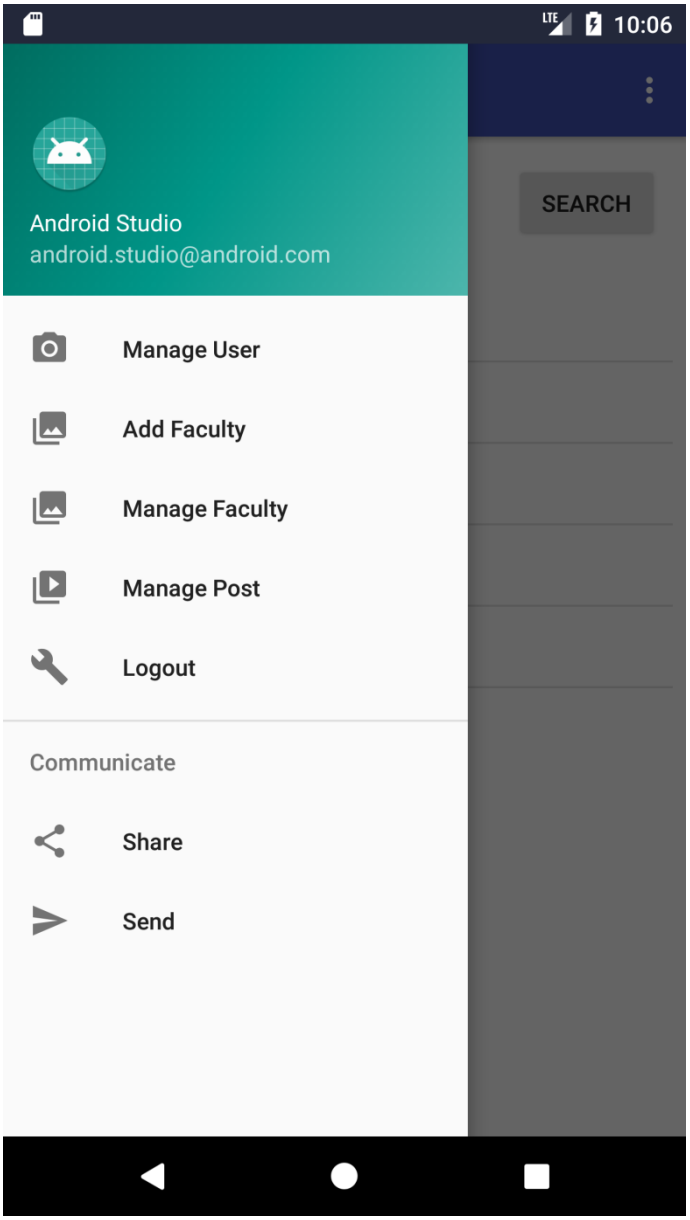
5.8. Profile

Description: This page shows profile of the user who is currently logged in. Also profile picture can be changed from this page.



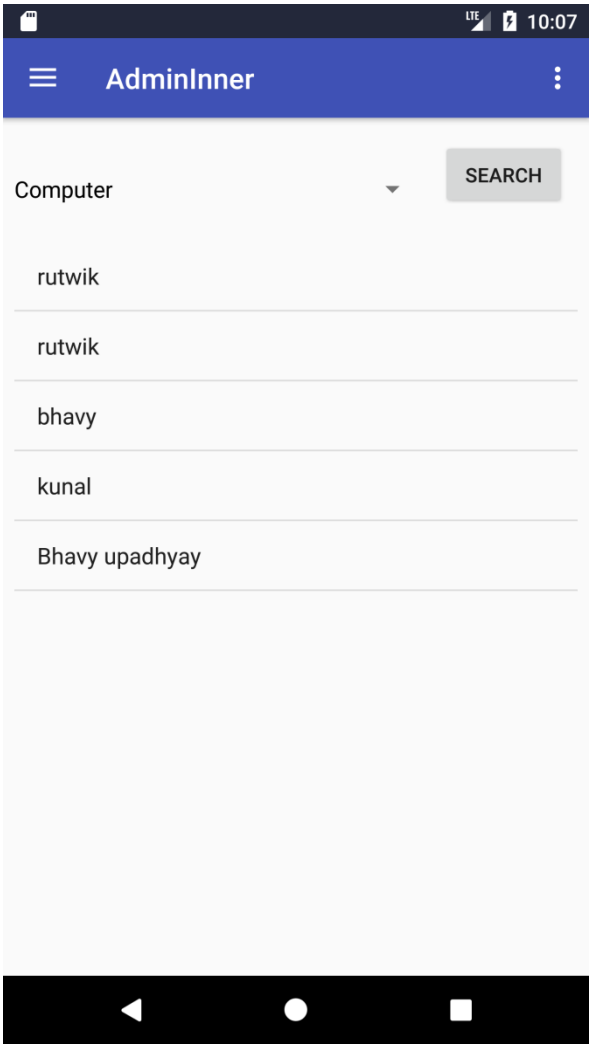
5.9. Chat List

Description: This page shows the chat list of the user who is logged in



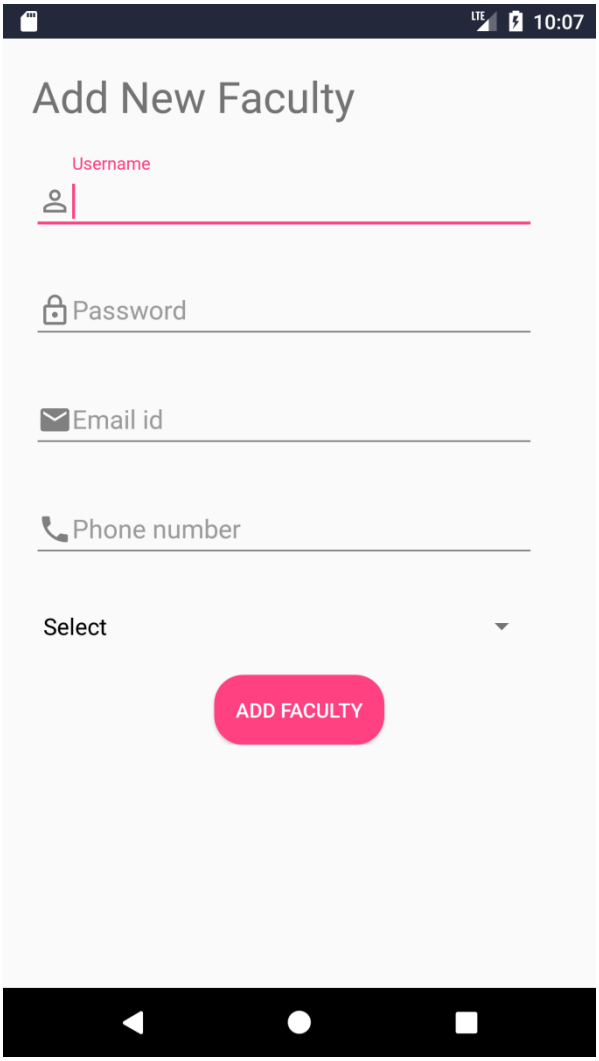
5.10. Admin Page

Description: When the admin logs in, he/she comes across the navigation bar which shows the functions that can be performed by admin



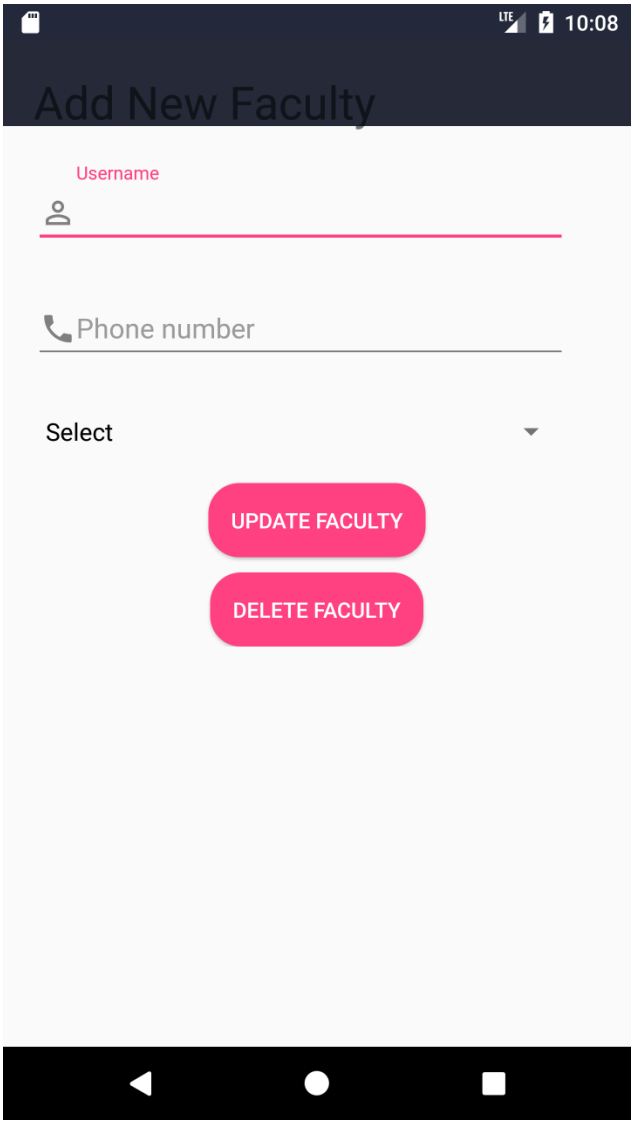
5.11. User's list

Description: The admin can see the list of all the users in a sorted way where they can be managed.



5.12 Adding Faculty

Description: Admin can create a faculty's account after which faculty can login from provided id and password.



5.13 Editing Faculty.

Description: The existing faculty details can be changed from this page by the admin.

CHAPTER 6: TESTING

• Testing plan:

What is 'software Testing'?

Testing involves operation of a system or application under controlled conditions and evaluating the results. The controlled conditions should include both normal and abnormal conditions. Testing should intentionally attempt to make things go wrong tom determine if things happen when they should. It is oriented to 'detection'.

The need for Testing:

No matter how good a programmer is, no application will ever be one hundred per cent current. Testing was important to us in order to ensure that the application works as efficient as possible and conforms to the needs of the system. Testing was carried out throughout the development of the needs of the system. Testing was carried out developed, as at this stage it took a great deal of effort to fix any bugs or design problems that were occurred.

• Testing strategy:

When our application was configured and customized in the system, the test was observed that this configuration or customization does not cause any improper processing or violation. The following care was taken when the application was developed at the local machine.

The interface may have something not proper, which can be tested by this checklist:

- Number of input parameter equal to number of argument?
- Parameter and argument attributes match?
- Number of argument transmitted to called forms equal to number of parameter?
- Attributes of arguments transmitted to called forms to attribute of parameter?
- Number attributes and order of arguments to built-in functions correct?
- The local data structures for a form are common source of errors.

The following types of errors should be searched for,

- Improper or inconsistent typing.
- Erroneous initialization or default values.

- Incorrect (misspelled or truncated) variables names.
- Inconsistent data types.
- Underflow, overflow and addressing exception.
- As far as unit testing is concerned we did it at the time of coding in an informal but extensive way, so as to reduce number of problems arising out of incorrect syntax, incorrect variable, function names and so on.
- Close the database connection when not required.
- Care was taken to check for ay infinite loop that exists in code before executing the code.

- **Testing Methods:**

1. White box Testing:

Also known as glass box, structural, clear box and open box testing. A software testing technique whereby explicit knowledge of the internal workings of the item being tested are used to select the test data. Unlike black box testing, white box testing uses specific knowledge of programming code to examine outputs. The test is accurate only if the tester knows what the program is supposed to do, it means that he must be completely aware that for particular input a particular output must be obtained.

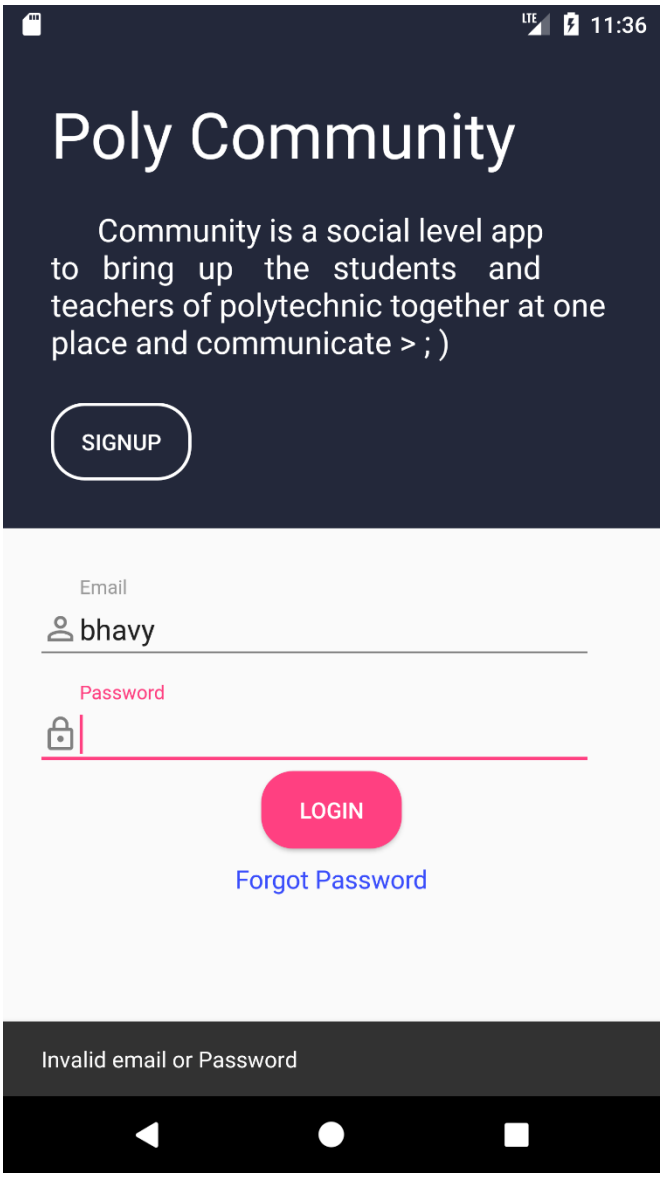
The main benefit of this type of testing is tester can see if the program diverges from its intended goal. This test concentrates on the examination of the code rather than the specification.

2. Black box Testing:

Black-box and white-box test design methods. Black-box test design methods. Black-box test design treats the system as a “black-box”, so it doesn’t explicitly use knowledge of the internal structure. Black-box test design is usually described as focusing on testing functional requirements. Also know as behavioural, functional and close box.

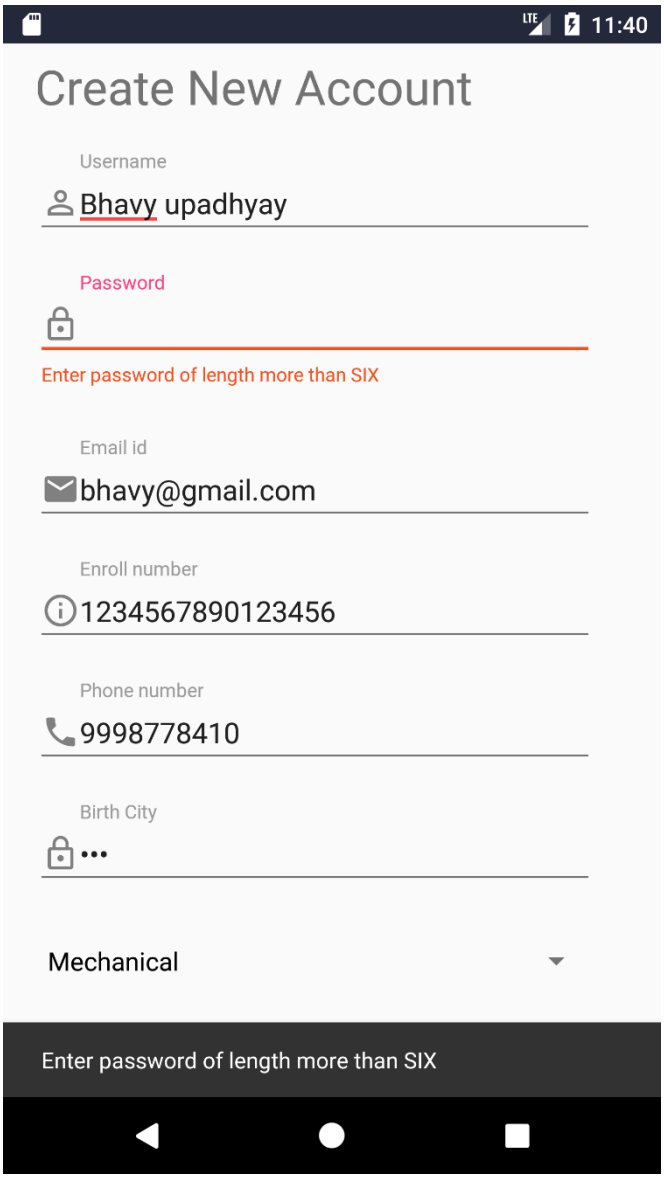
Black-box testing was helpful us to find error such as:

- Interface error.
- Interconnect or missing functions.
- Errors in data structures or external database access.
- Performance Errors.
- Initialization and termination errors.



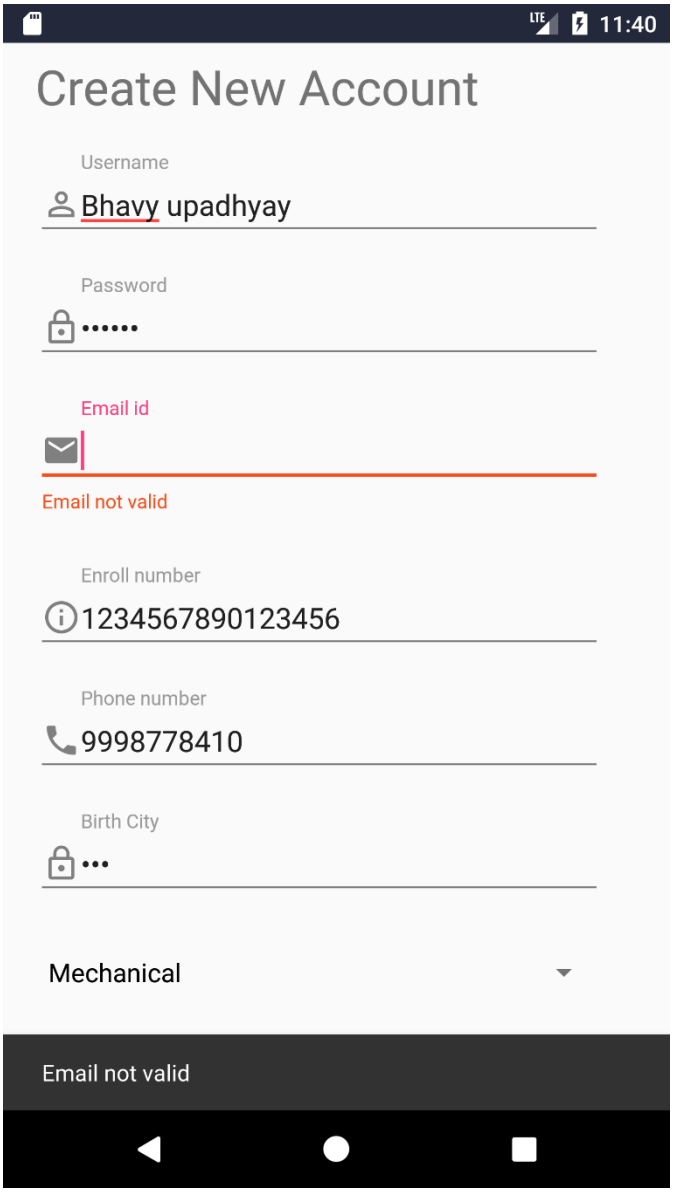
6.1. Email & Password Validation

Description: This image shows validation errors on the login screen



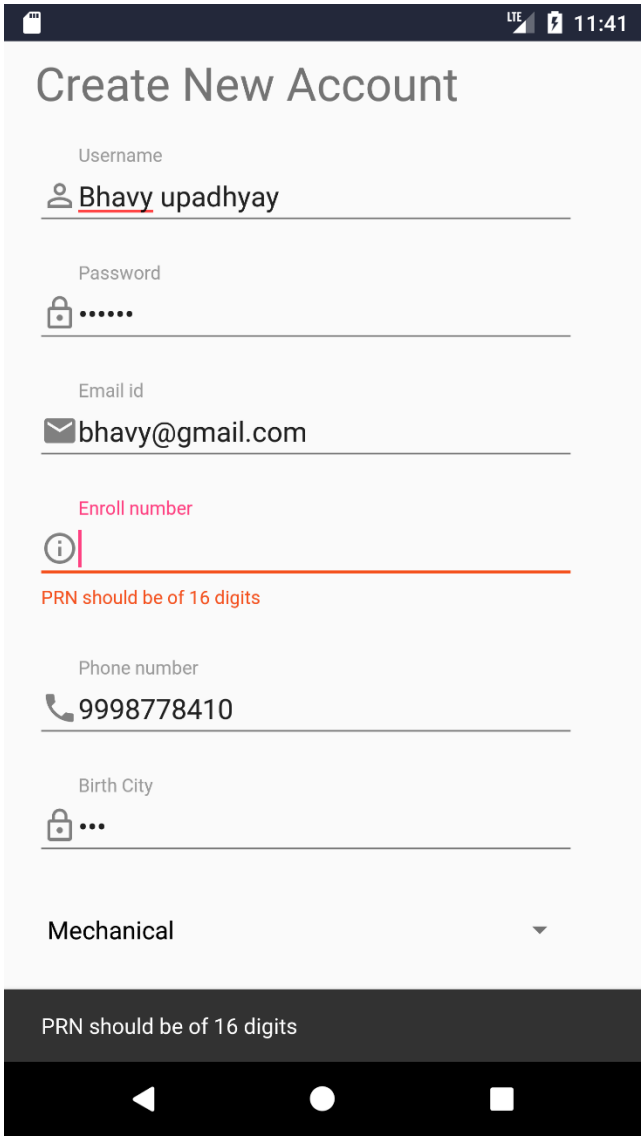
6.2. Password Validation

Description: This figure shows that if user enters password less than 6 characters then error occurs.



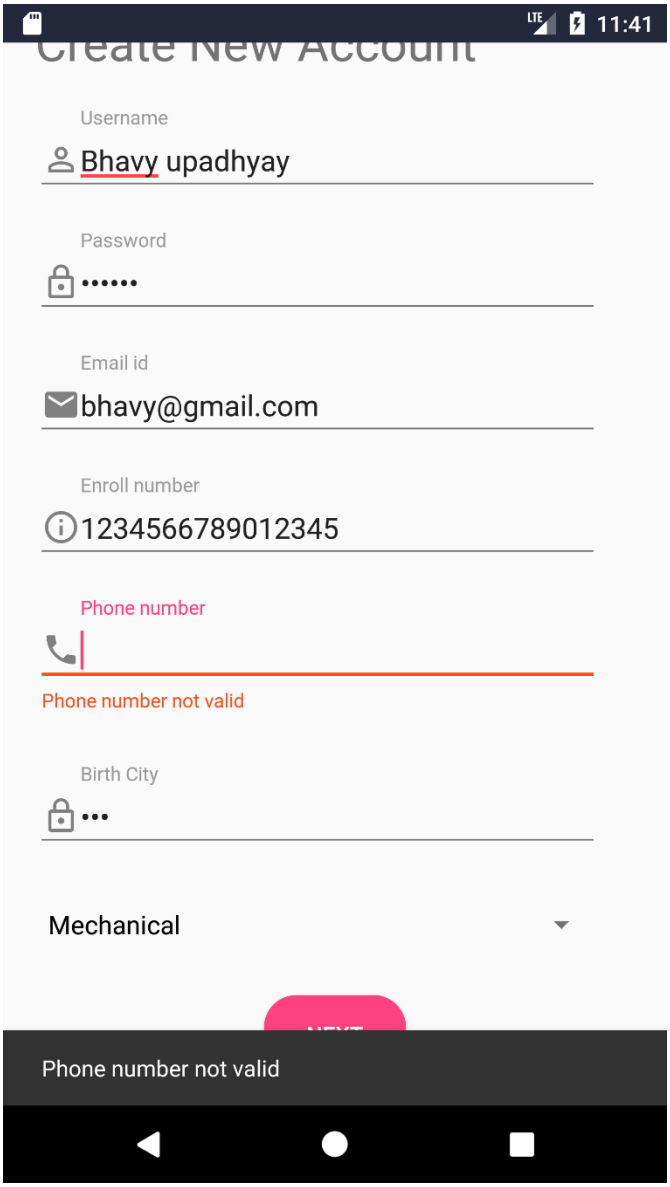
6.3. Email Validation

Description: This figure shows that error occurs when email id is not in proper format



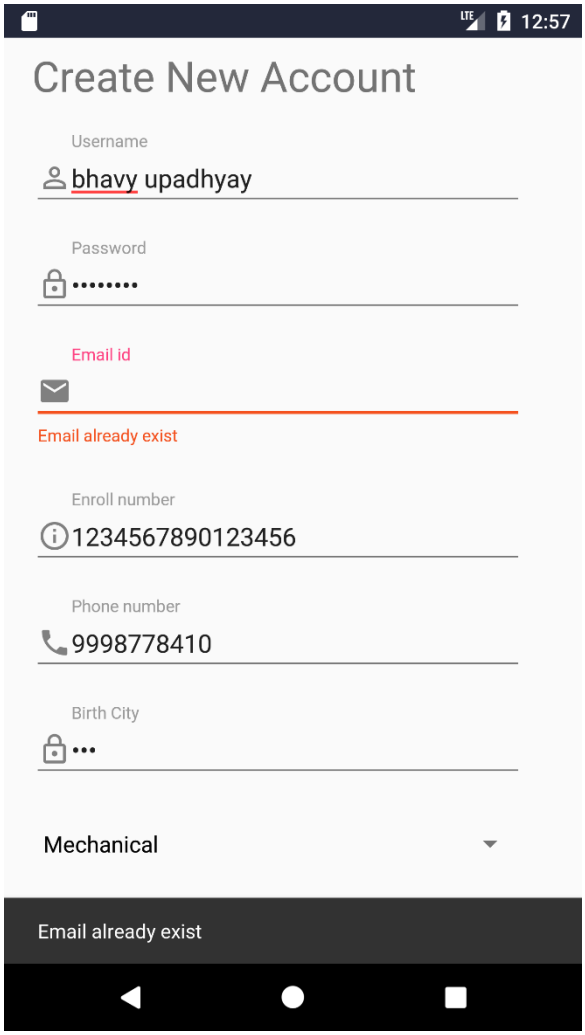
6.4. PRN Validation

Description: This figure shows that an error occurs when the user tries to enter incorrect PRN



6.5. Phone number Validation

Description: This image shows validation errors on the sign-up screen when the phone number is less than or more than 10 digits



6.6. Redundancy Validation

Description: This image shows validation errors on the sign-up screen when user tries to enter duplicate data

CHAPTER 7: CONCLUSION AND FUTURE WORK

Thus, Poly Community is a community level mobile application. The basic idea behind the application is to bring only the students of college as a community at one place to socialize and to know each other in more aligned way. It keeps the college students updated about the upcoming events. It also removes the request or follow barrier between the students of college. The teachers will also be able to post any updates regarding exam or some other events which would be posted on the wall and can be viewed by the students.

FUTURE WORK

The proposed system can be expanded to any number of colleges across the globe. The system has scope to be implemented widely as the students will be able to come close the their colleagues & also the provision of study materials directly via the teaching staff will help students get the notes easily.

As there will be regular admissions in any particular college, it will ensure the registration of that amount of user in the system, which n turn will ensure the regular registration of people into the system. The Poly Community has a wide scope for its implementation.

BLIBLIOGRAPHY

WWW.STACKOVERFLOW.COM
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