

1. Introduction

a. Purpose

Aim: To allow people of Bhutan to express themselves and share their passion, refine individuals writing skills and get more exposure to world outside them.

The main objective of this development are:

- 1) To let people share and express their thoughts and ideas.
- 2) To enable people to gain knowledge out of their bound/learn new things.
- 3) To develop an android application which serves as a platform where the individuals can read, write and follow your favorite bloggers.

b. Scope.

The main scope of this project is mainly for the people in Bhutan so that they share any stuffs they are interested in this platform and get connected among themselves through posting/sharing online.

System Scope:

To develop a mobile application with following features:

- a) Category selection.
- b) Images/videos.
- c) Rating and feedbacks.
- d) Exit.

2. Requirements.

a. Functional Requirements

i. Describe each feature of your application

- ✓ Firstly, the user and the bloggers need to sign up if they don't have an account, but if they do, they can directly access by signing in with required email and password.
- ✓ The app will be designed in such a way that it will consist of the four categories which will include food, musics, places and education so that the users and the bloggers can post/view in any field they are interested to.
- ✓ For the bloggers, there will be options such as published and drafts.
- ✓ After posting the stuffs, there will be options such as edit, delete and share so that the bloggers can undo or make changes to the stuffs they have posted.
- ✓ The audience and the users can like, comment, share and follow the blog and the bloggers they find fun.

b. Non-functional requirements

- The app can be easily portable to different versions of android.
- Availability: where the user can access the application to install and look for regular updates and give feedback.
- The application will be user friendly and responsive.
- The orientation of the app will be in both portrait and landscape.
- It will also consist of features such as rating the application, giving feedback section and exit option.

c. Software Requirements

i. The technology used and version

For Developer

1. Java version : Java SE jdk 8 and above.
2. Android Studio version 4 and above.
3. Android SDK-25 and above.
4. Operating System : Ubuntu and Windows.
5. Firebase as database.

3. Hardware requirements.

For Developer

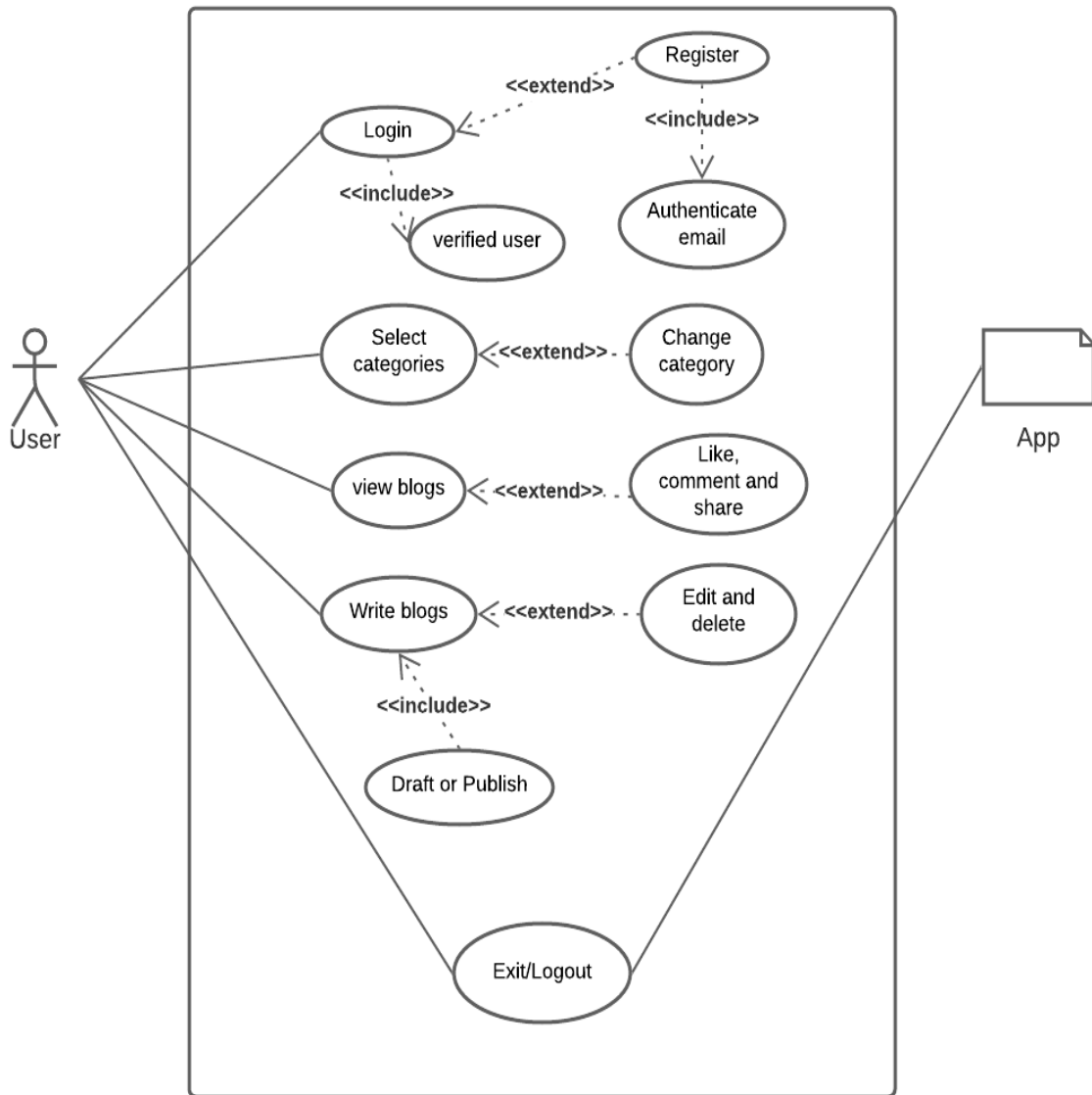
1. RAM : 4-8 GB
2. 2.00GHz*4 Processors
3. Disk Capacity : 1.0 TB and above.

For Users

1. Android Phone with internet access.

4. System Designs.

1. Use Case



The main purpose of usecase is to help development team visualize the functional requirements of a system, including the relationship of actors to essential processes and also among different use cases.

The app consists of two actors:

1. App
2. User

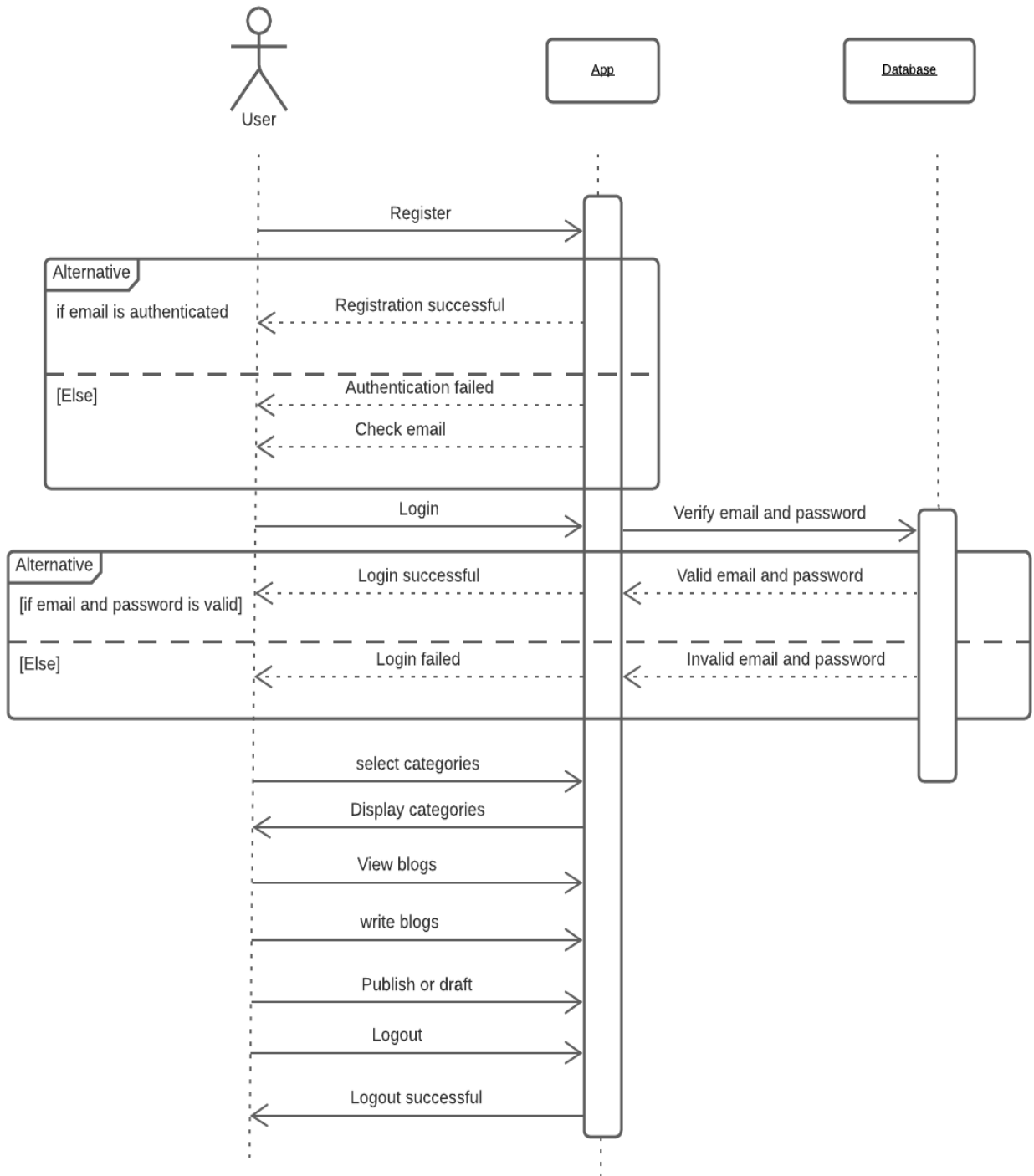
The functionality of the User are: -

1. Login. (If you don't have an account, you can sign up and register yourself).
2. Select categories.
3. View blogs. (You can Like, Comment and Share the blogs you find fun).
4. Write blogs. (You can write, edit and delete blogs. After writing, you can also either put it in draft or publish it).
5. Exit/Logout.

The functionality of the system is:

1. Exit/Logout.

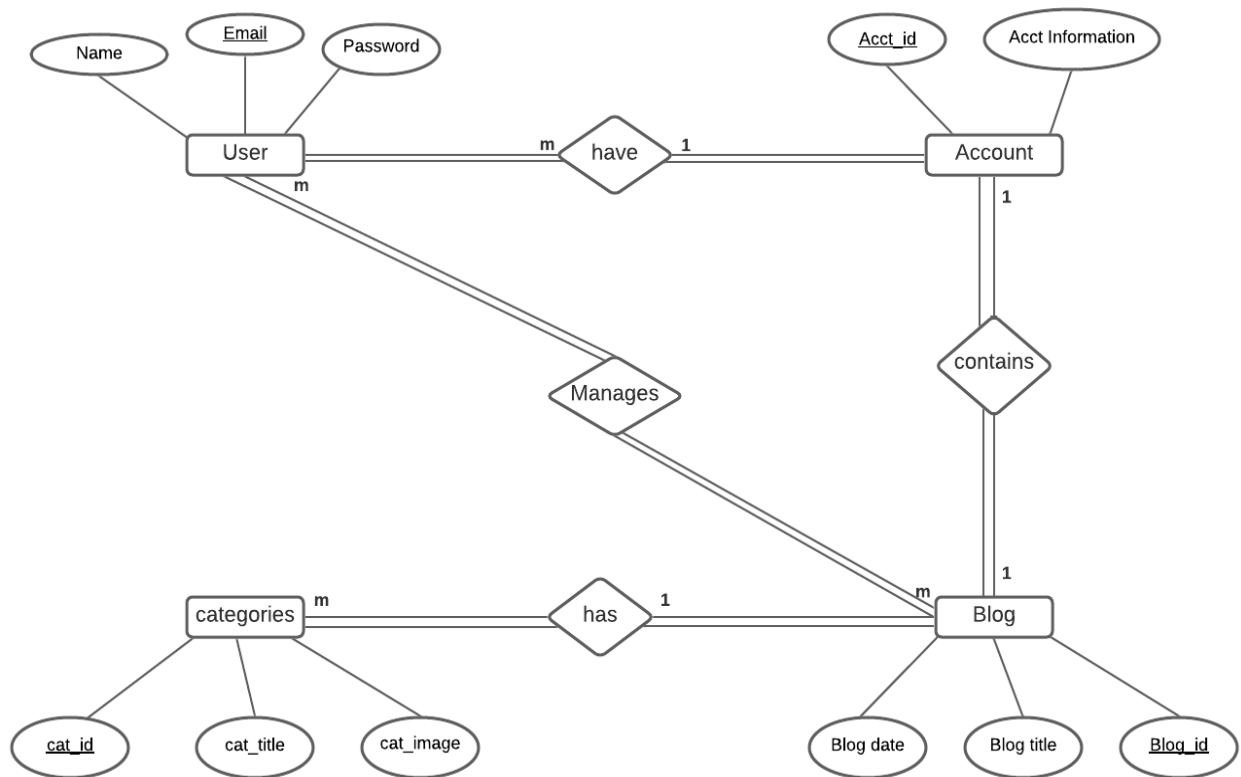
2. Sequence Diagram.



Sequence Diagrams are interaction diagrams that details how the operations are carried out. They capture the interaction between the objects in context of a collaboration.

- Here, the user needs to first register themselves. There is two alternatives. If their email is authenticated, the registration will be successful, else the registration fails.
- If the user already has an account, they can directly login. The details will be stored in the database where if the email and password they enter is valid, the login becomes successful, else the Login fails.
- The user can select the categories where by the app will display it. Categories include food, music, places and education.
- The users can also view blogs and give Like, comment or share it.
- If the user wants to write the blog, they can write it and keep either in drafts or publish it. If they want to make changes later, they can even edit or delete the blogs.
- Lastly, the users can logout their account where the system will successfully log it out.

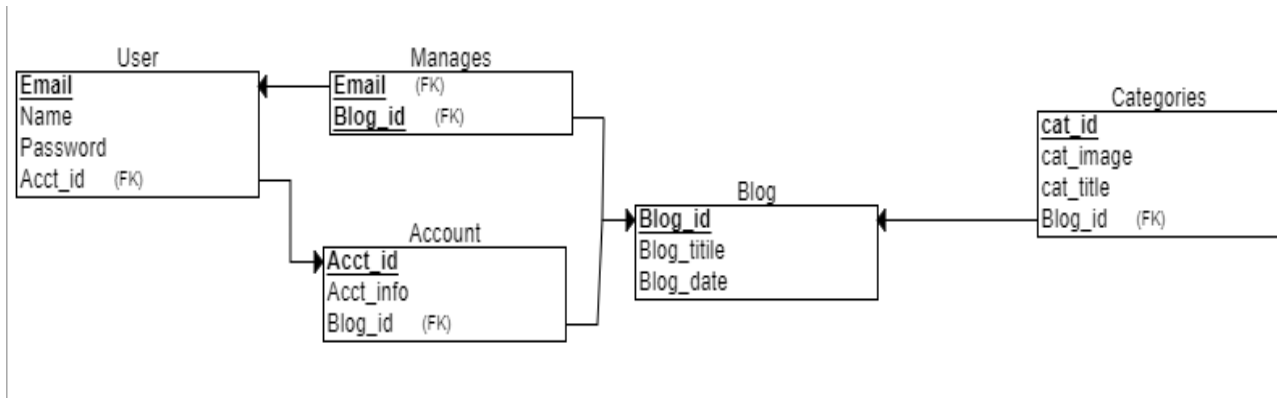
3. Entity Relationship Diagram. (ERD).



ERD diagrams are commonly used in conjunction with a data flow diagram to display the contents of a data store. They help us to visualize how data is connected in a general way, and are particularly useful for constructing a relational database.

- Here, there are four entities namely User, Account, Categories and Blog.
- In the entity User, Email is a primary key as it uniquely identifies the users. Many users can use the app but only one account should be created by an individual person.
- The Account will contain the blogs that the user posts where a blog consists of four main categories such as food, musics, places and education.
- The Users will manage the Blog and selects in which category they want to publish or view.

4. Relational Schema.



Schema refers to the organization of data as a blueprint of how the database is constructed (divided into database tables in the case of relational databases). It is a set of formulas called integrity constraints imposed on a database.

Table Names : 1. User.
2. Manages.
3. Blog
4. Categories.
5. Account.

Primary Keys :

1. Email is the primary key of User.
2. Blog_id is the primary key of Blog.
3. Cat_id is the primary key of Category.
4. Account_id is the primary key of Account.

Foreign Keys:

1. Email and Blog_id from the table User and Blog respectively are the foreign key in the table “Manages”. Since in order to manage the Blog, the user needs to login where the email is required since it will uniquely identify the users. And Blog_id is required in order to manage the Blogs.
2. Acct_id from Account table is a foreign key in User and table because a User needs an account to Log in to the Blog. Where the Blog_id is a foreign key in Account table because an account is required to post a view blogs.
3. Similarly, Blog_id from Blog table is a foreign key in the “Category” table as the users can only view categories in the Blog once they login to it.