King Fahd University of Petroleum and Minerals

College of Computer Science and Engineering

Information and Computer Science Department

SWE 363 – 191

Project Title: KFUPM E-Activities Web Application

Team ##

Abdullah Khayat	201526910
Omar Alghamdi	201528950
Mohammad Alattas	201513050

Phase 01 Report

19-Sep-2019

Table of Contents

1. Project Purpose

The primary goal of this document is to define and describe the functions and specifications of the KFUPM e-activities web app to help the developer team to not deviate from the requirements by documenting them professionally and providing guidance and reference for the upcoming phases. This Document clearly illustrates user requirements, use case diagrams, activity models, class models, database models, navigation models, presentation models, and user interface.

A second goal for the document, is to help making a contract with the customer that includes system requirements that are professionally documented. To make things clear to the customer, so he can either accepts or declines the software project.

2. Project Goal

The objective of this project is to design a KFUPM e-activities web app for KFUPM. The system shall provide a platform that unify and present all the extracurricular activities that are ongoing in KFUPM. This will provide the students with a one stop shop website where they can check and participate in all of the activities that are taking place in KFUPM, thus saving them time and the hassle of keeping up with every activity organizer on his own.

3. Product Features

1. Anonymous user
   1.1. The anonymous user shall be able to register in the system.
   1.2. The anonymous user shall be able to sign into the system.
   1.3. The anonymous user shall be able to browse activities.
   1.4. The anonymous user shall be able to search for particular activities.

2. Registered user
   2.1. The registered user shall be able to update his profile
   2.2. The registered user may be able to view his notifications
   2.3. The registered user shall be able to browse activities
   2.4. The registered user shall be able to search for particular activities
   2.5. The registered user shall be able to request activity participation

2.6.   The registered user shall be able to view his own participation request activities

2.7.   The registered user shall be able to edit his own participation request activities

2.8.   The registered user shall be able to cancel his own participation request activities

2.9.   The registered user shall be able to offer an activity

2.10.   The registered user shall be able edit an activity

2.11.   The registered user shall be able end an activity

2.12.   The registered user shall be able view incoming participation requests

2.13.   The registered user shall be able accept incoming participation requests

2.14.   The registered user shall be able reject incoming participation requests

2.15.   The registered user shall be able to send a feedback

2.16.   The registered user may be able to reply to a comment

3. Admin

3.1.   The admin shall be able to sign in

3.2.   The admin shall be able to accept user registration

3.3.   The admin shall be able to reject user registration

3.4.   The admin shall be able to delete a user

3.5.   The admin shall be able to block a user

3.6.   The admin shall be able to accept an activity offer

3.7.   The admin shall be able to reject an activity offer

3.8.   The admin shall be able to generate a report

4. Models

4.1. Use Case Diagram

4.2. Activity Diagram

Request Activity

browse activities

search particular activity → select activity

request activity

[logged in]

false → sign in

[success]

true

true   false

update database
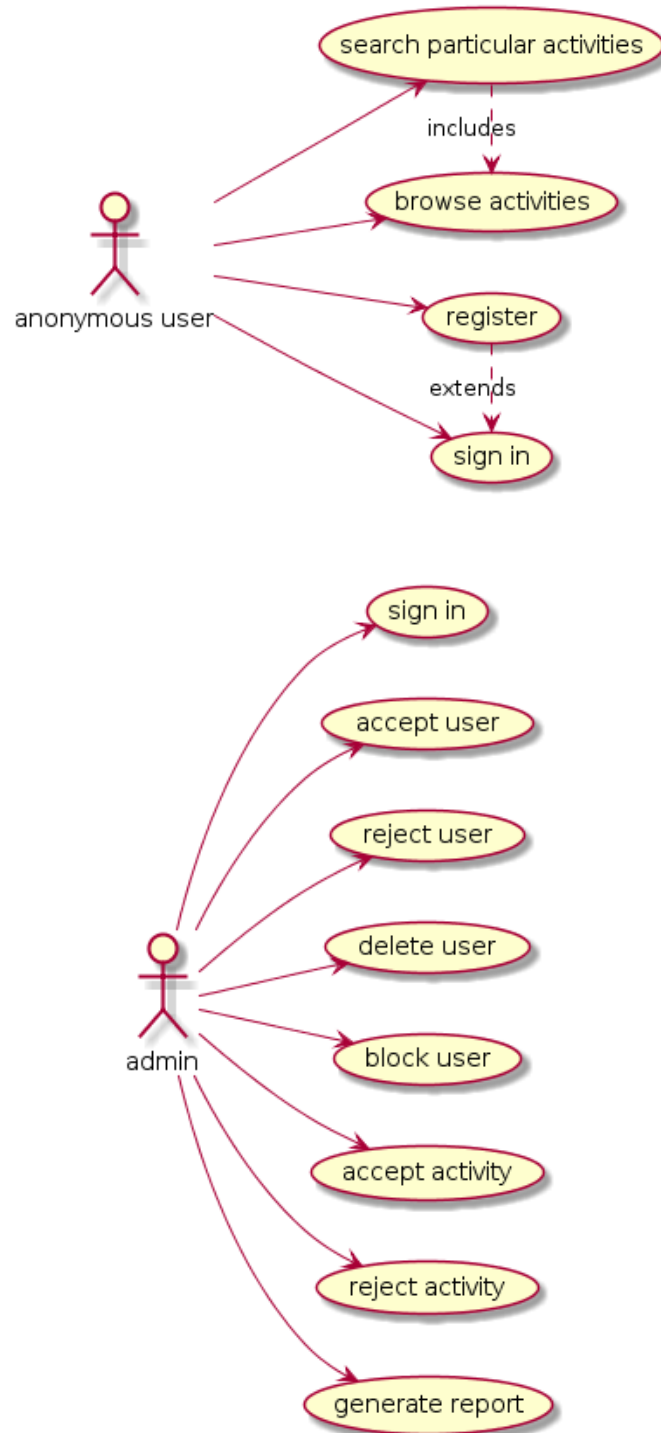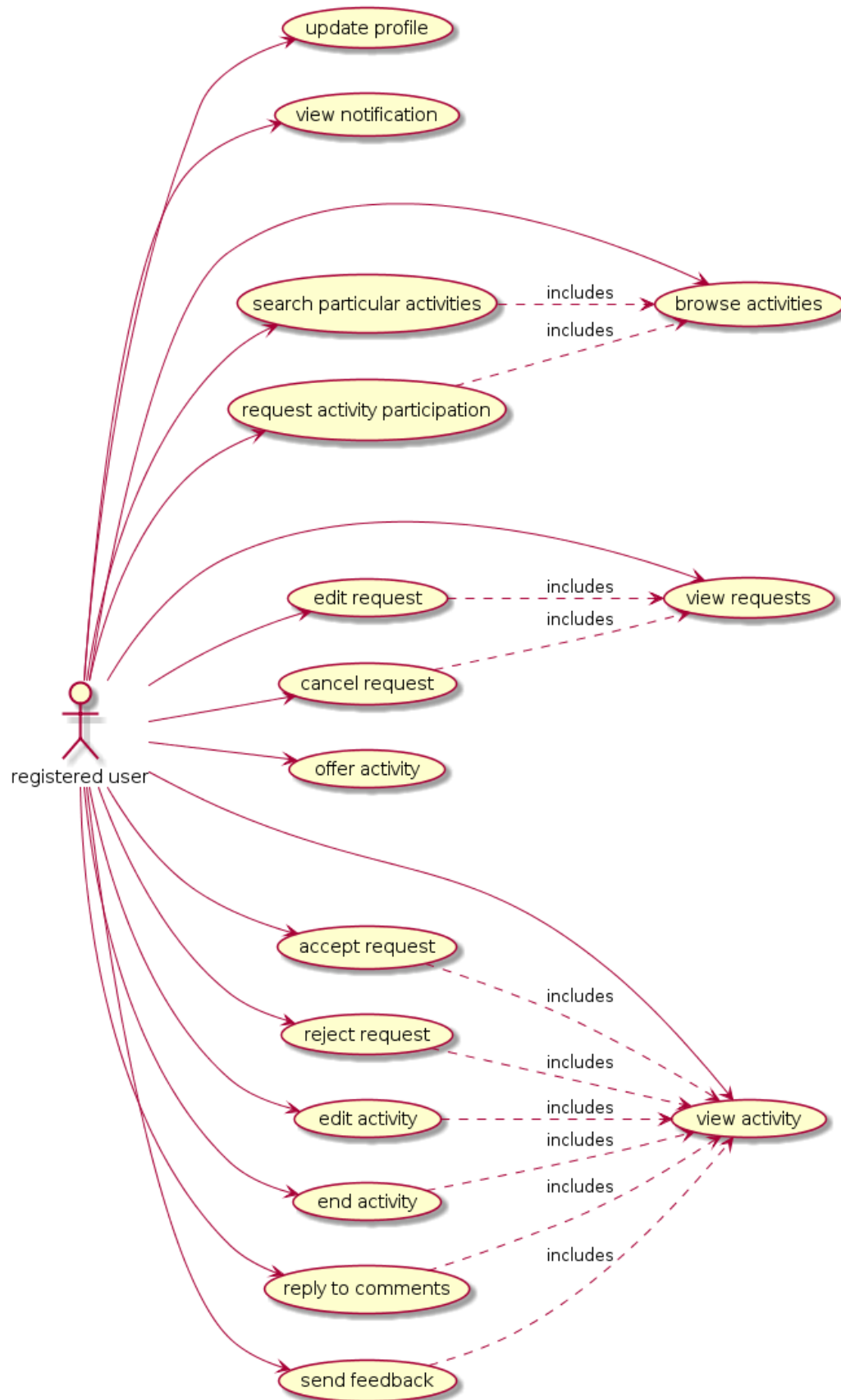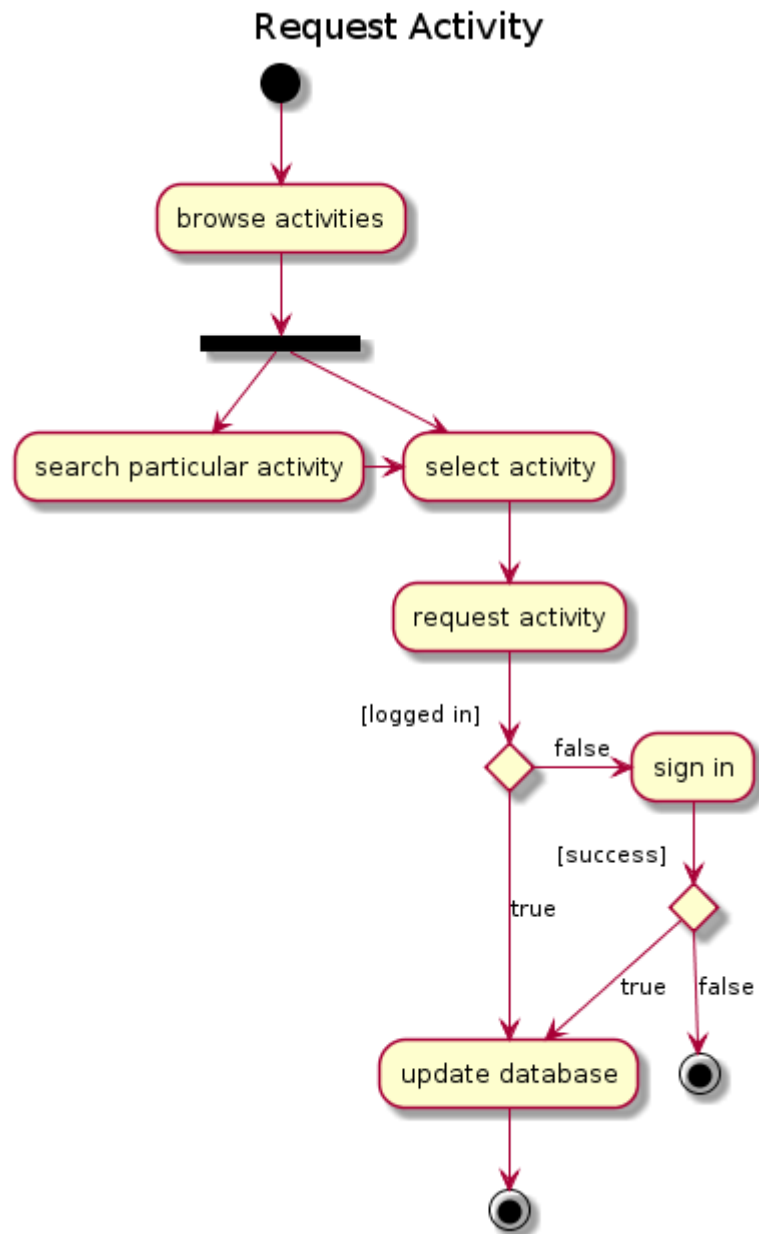
Sign In

Anonymous User Registration

[user is registered]

true → sign in

false

sign up

fill in form

false

[valid]

true

submit request

Edit/Cancel Request

view requests

select requests

edit requests

cancel requests

enter new values

update database

false

[valid]

true

submit
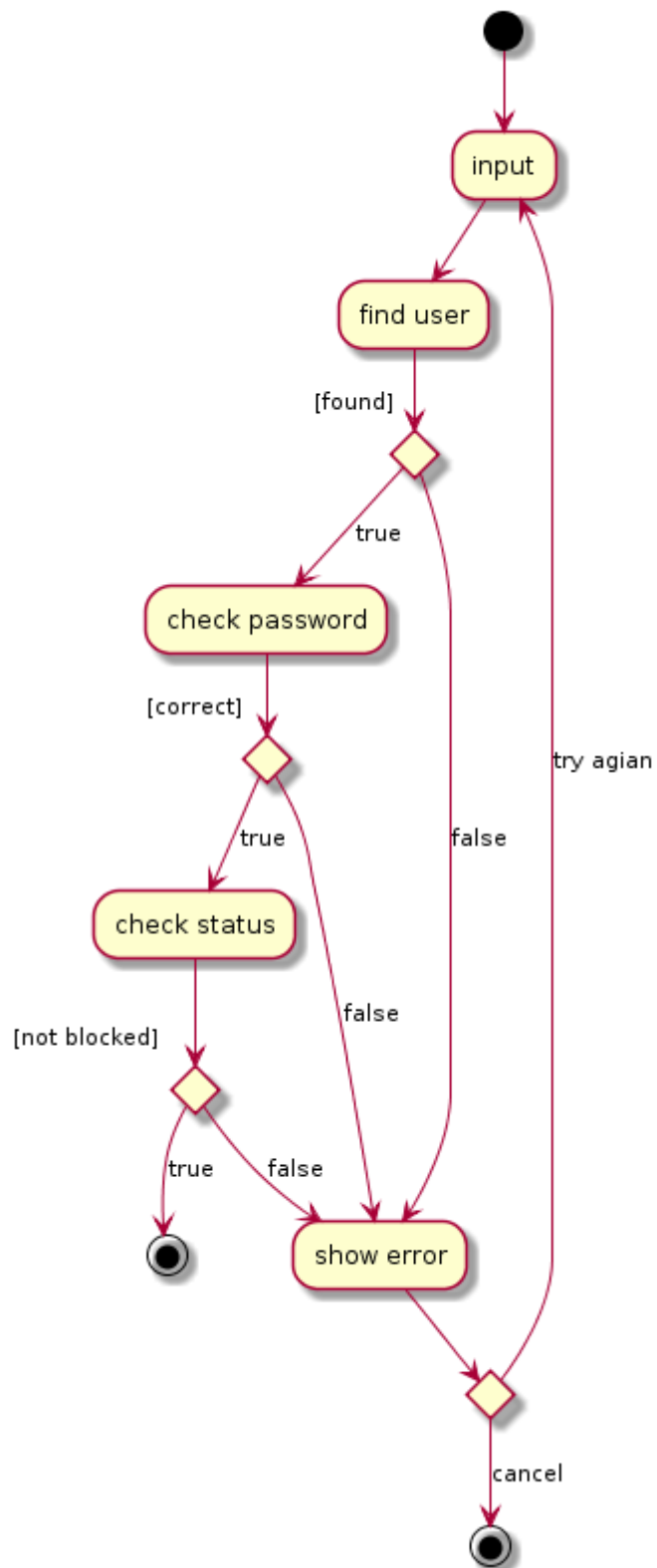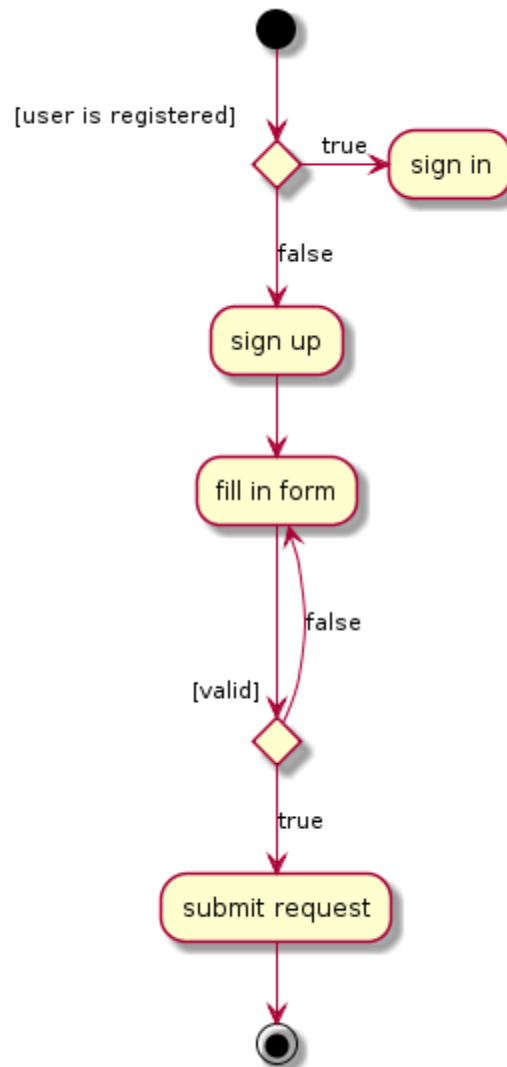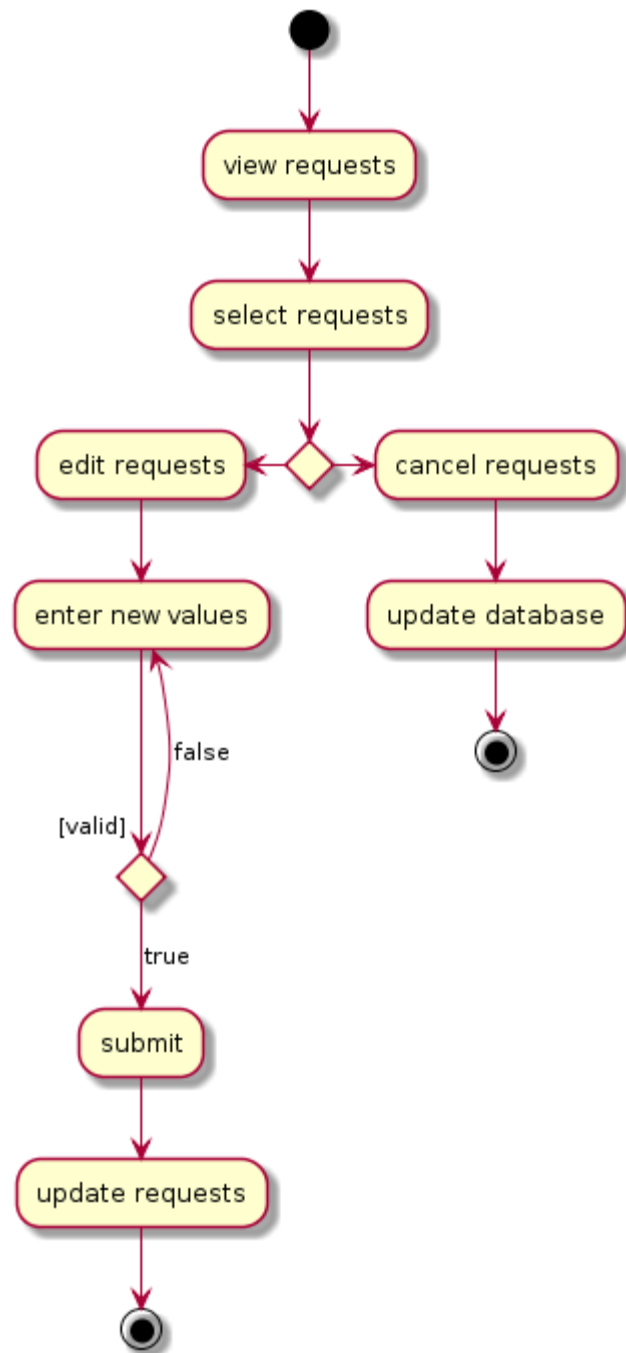
update requests

Update Profile

Offer Activity

```
        ●
        │ user is in homepage
        ▼
  ┌──────────────┐
  │ add activity │
  └──────────────┘
        │
        ▼
  ┌──────────────┐
  │ fill in form │
  └──────────────┘
        │   ▲
        │   │ false
 [valid]│   │
        ▼   │
        ◇
        │ true
        ▼
  ┌──────────────┐
  │ submit request│
  └──────────────┘
        │
        ▼
        ◉
```
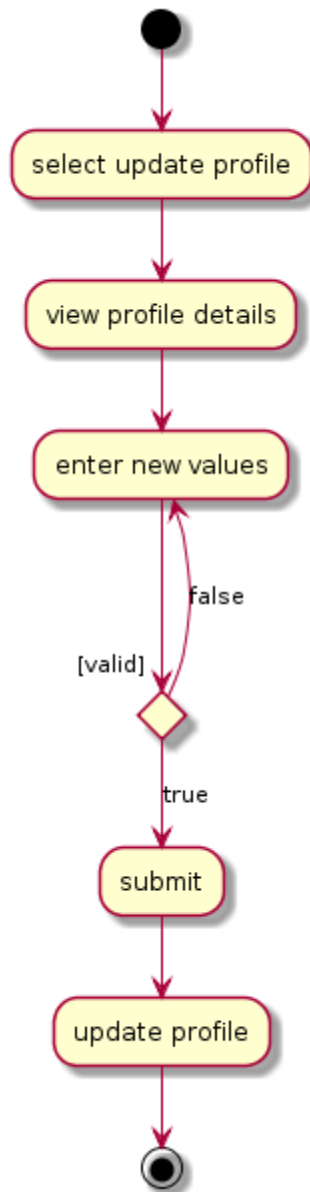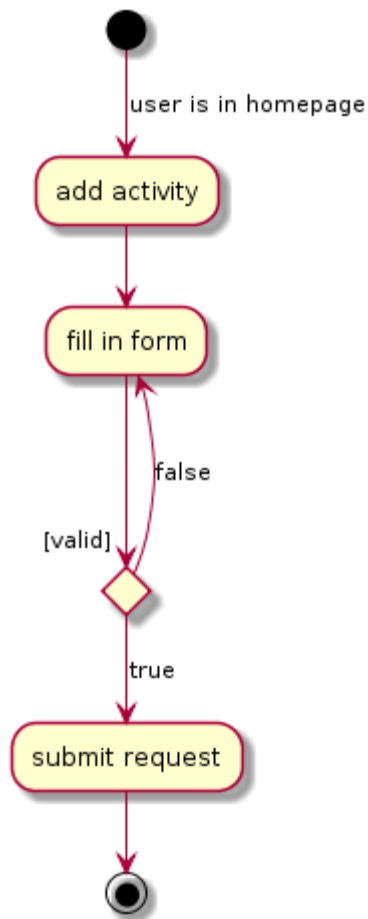
Edit/End Activity
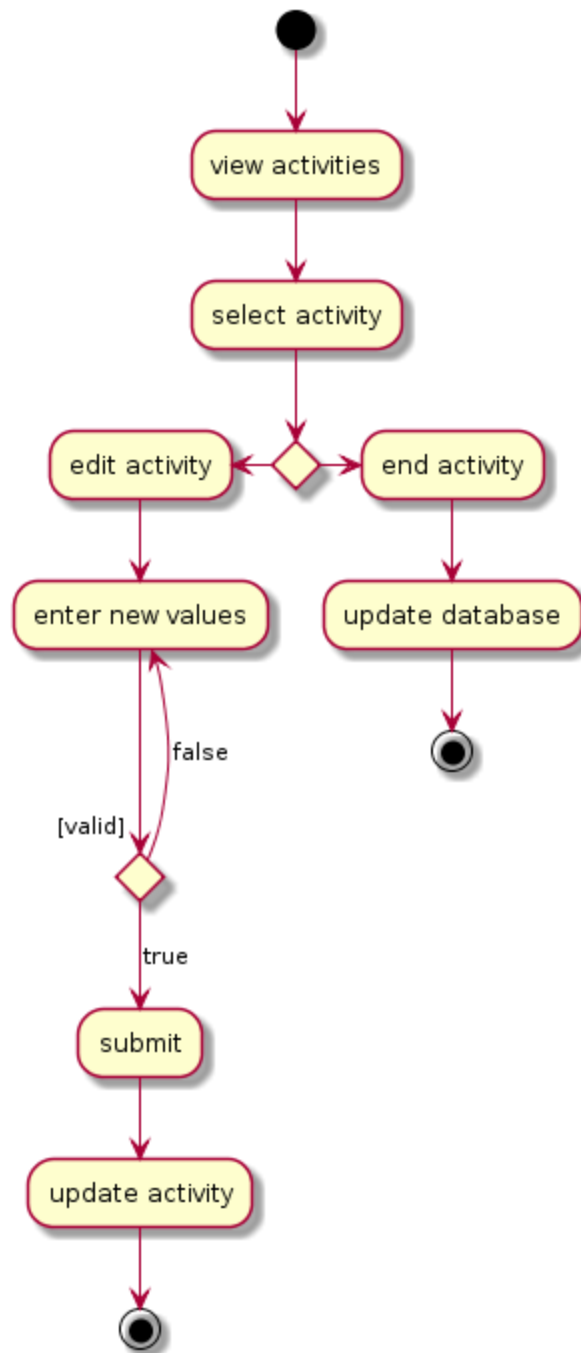
Accept/Reject Participation Request

```
●
│
▼
recieve participation request
│
▼
view participation requests
│
[request exists]  ◇ ──false──► show message ──► ◉
│
true
▼
choose request
│
▼
◇ ──► reject request ──► remove user from activity database ──► ◉
│
▼
accept request
│
▼
add user to activity database
│
▼
◉
```
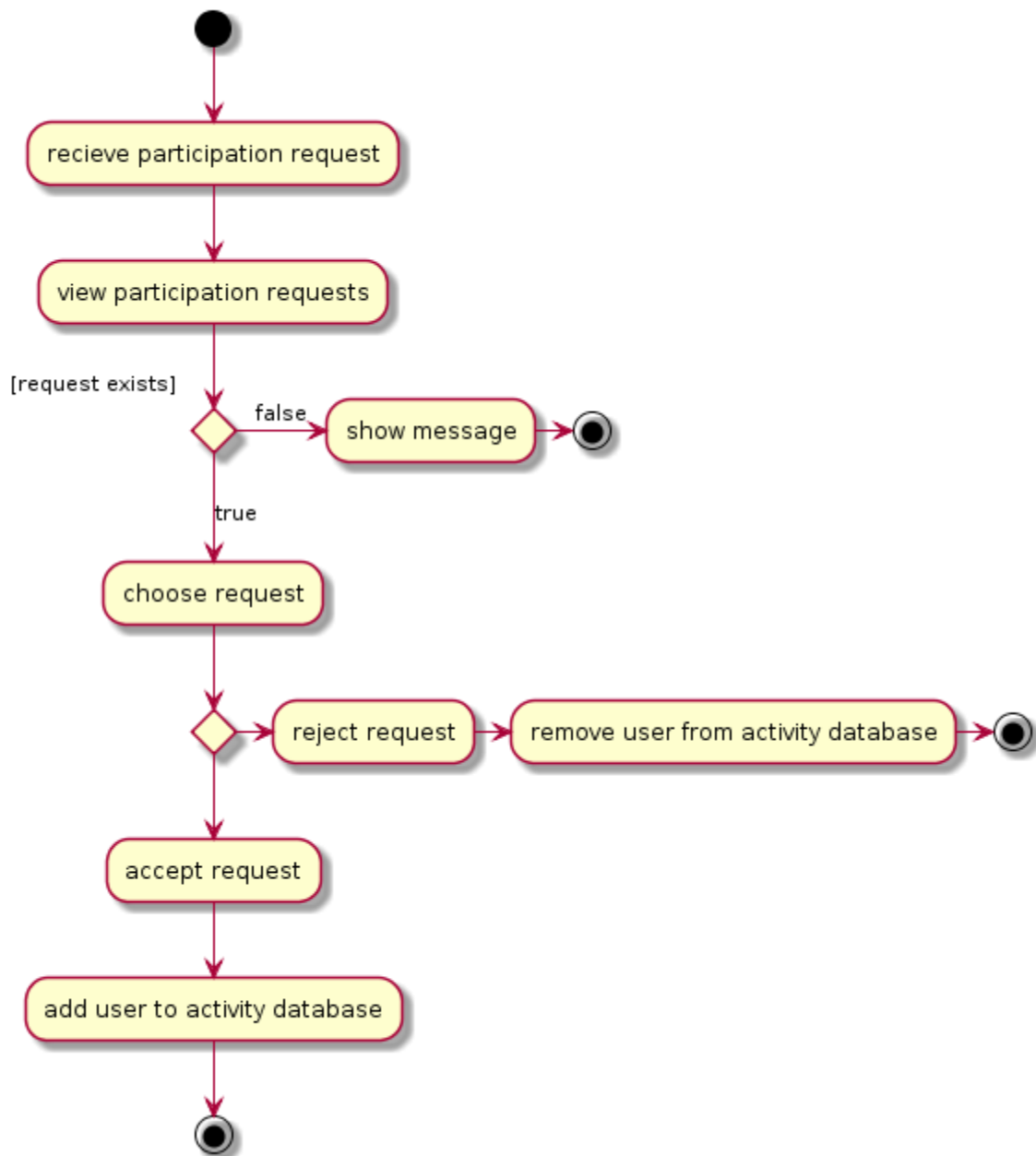
Send Feedback
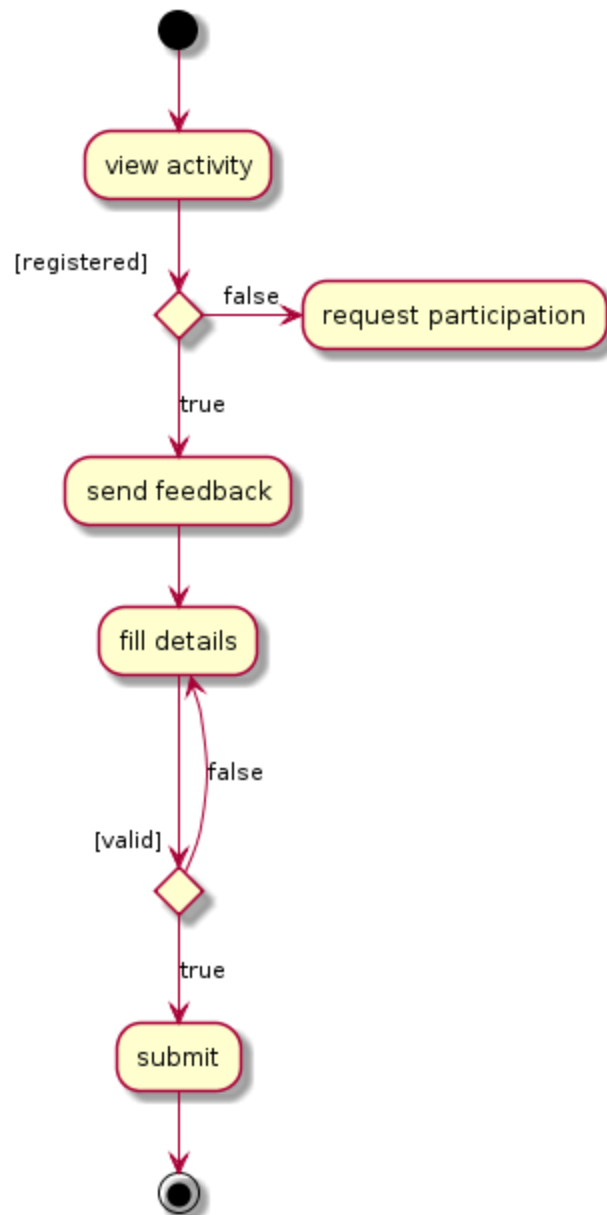
Accept/Reject Registration Request
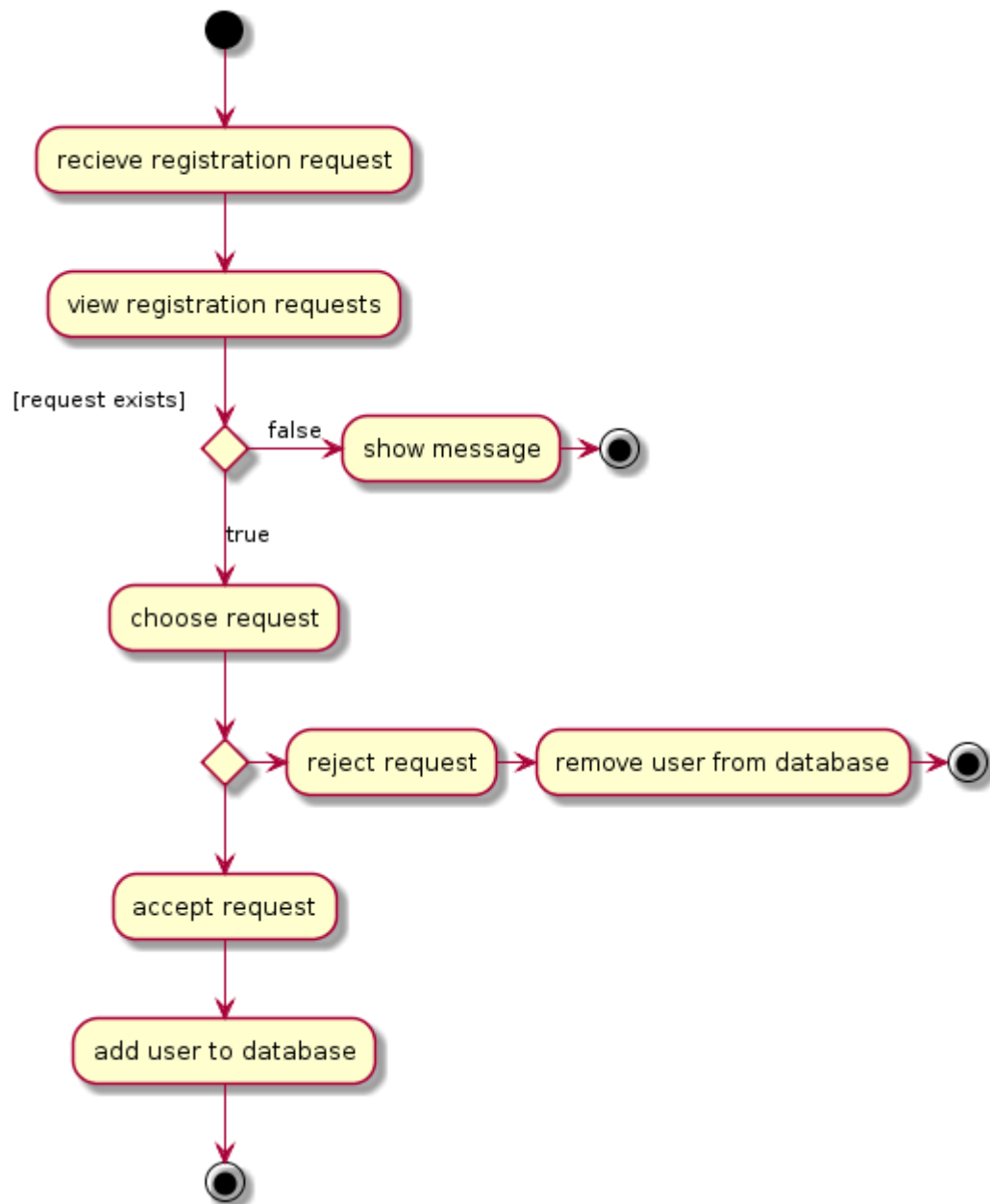
Block/Delete User
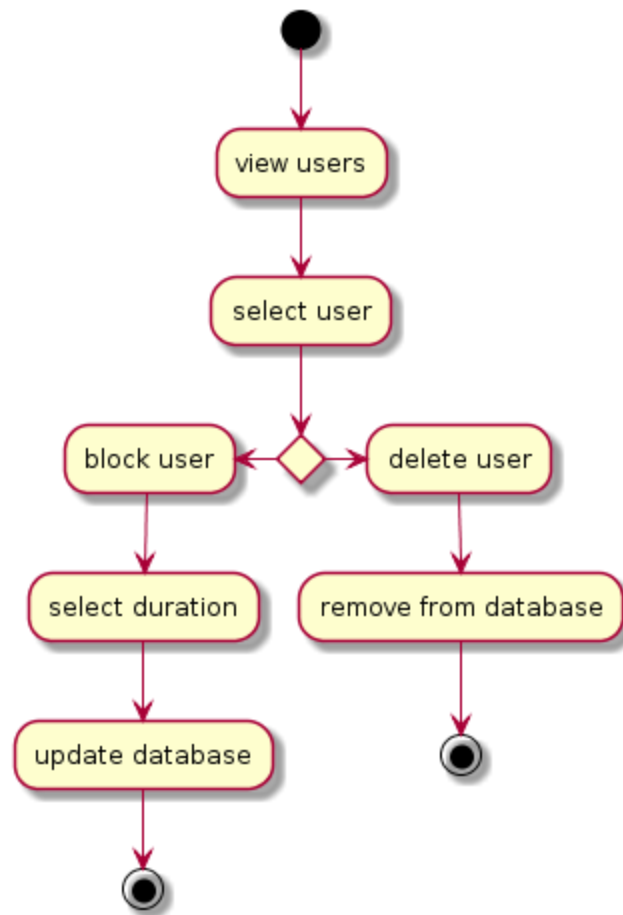
Accept/Reject Activity Request

Reply To Comments

view activities

select activity

view comments

select comment

add reply

Generate Report
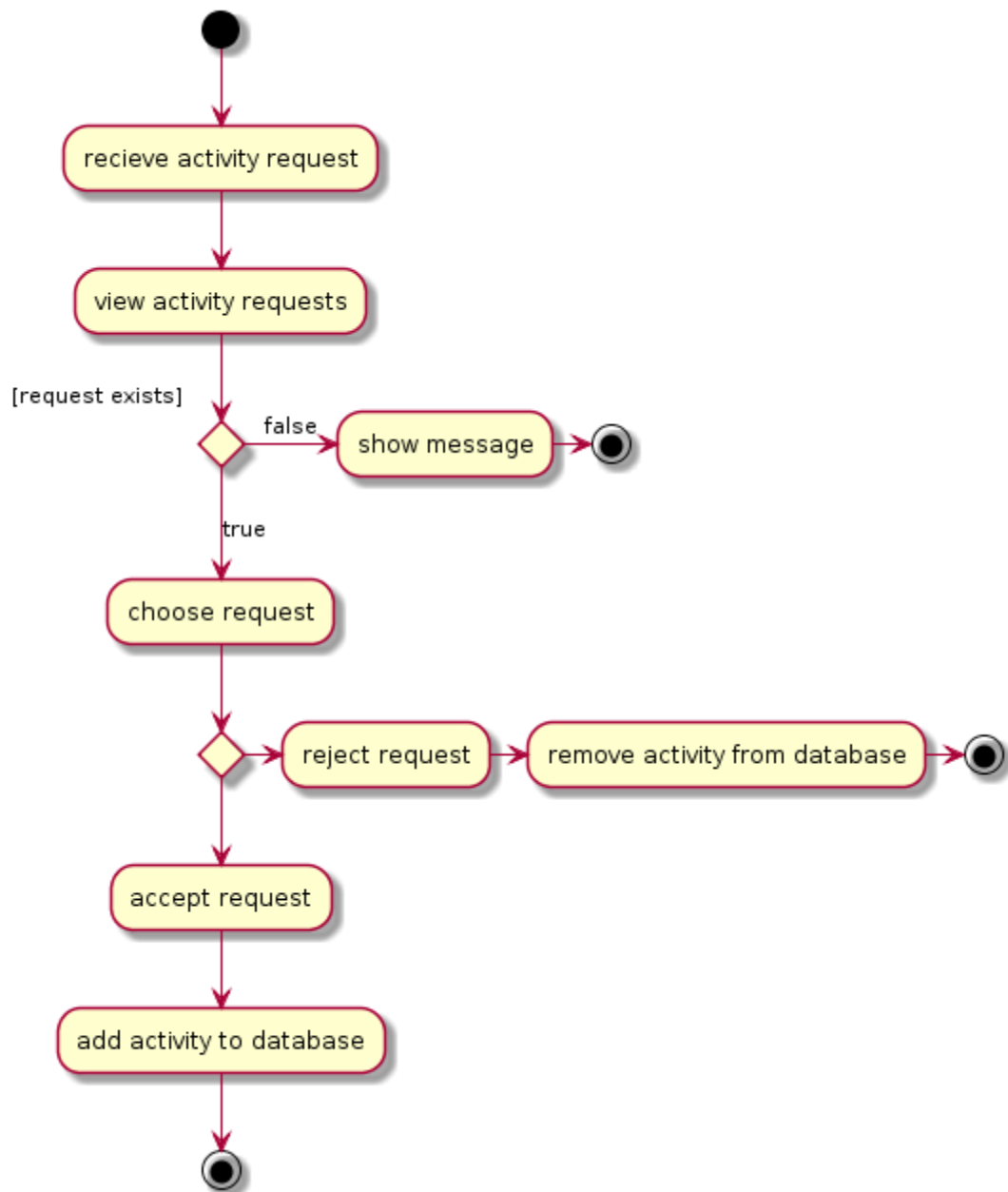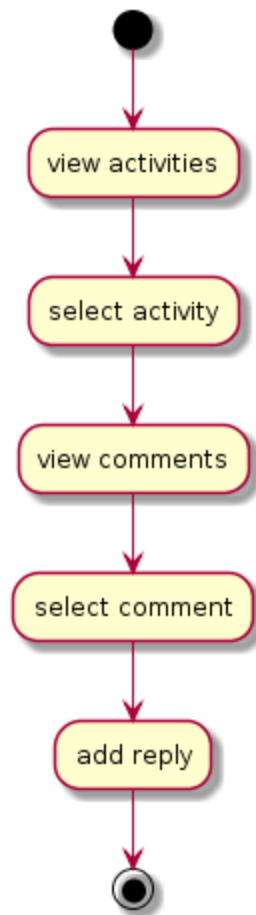
```
●
↓
[ select generate report ]
↓
[ choose type ]
↓
[ submit ]
↓
[ fetch data from database ]
↓
[ generate report ]
↓
◉
```

4.3. Class Diagram

sends

C User
firstName: String
lastName: String
email: String
password: String
type: String
state: String

C Event
ID : Integer
Name : String
Desc : String
startDate: Date
startTime: Date
endDate: Date
endTime: Date
creator: String
joined []: User
waiting []: User
feedbacks[]: Feedback

C Feedback
by: User
text : String
Reply : String

1 creates *

* joins *

1

*

* *
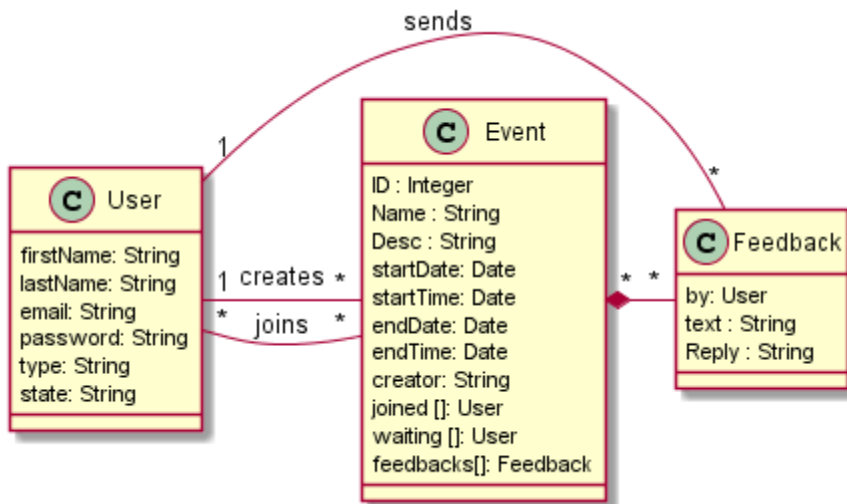
4.4. Database Diagram

```
ROOT
    USERS (collection)
        user_id (document)
        firstName: ""
        lastName: ""
        email: ""
        password: ""
        type: ""
        state: ""

    EVENTS (collection)
        event_id (document)
            id: "#"
            name: ""
            desc: ""
            startDate: "Date"
            startTime: "Date"
            endDate: "Date"
            endTime: "Date"
            creator: "Date"
            joined: [user_id],
            waiting: [user_id],
            feedbacks: [
            {
                by: User
                text : String
                Reply : String
            }
```

4.5. Navigation Diagram

Anonymous User & Registered User:
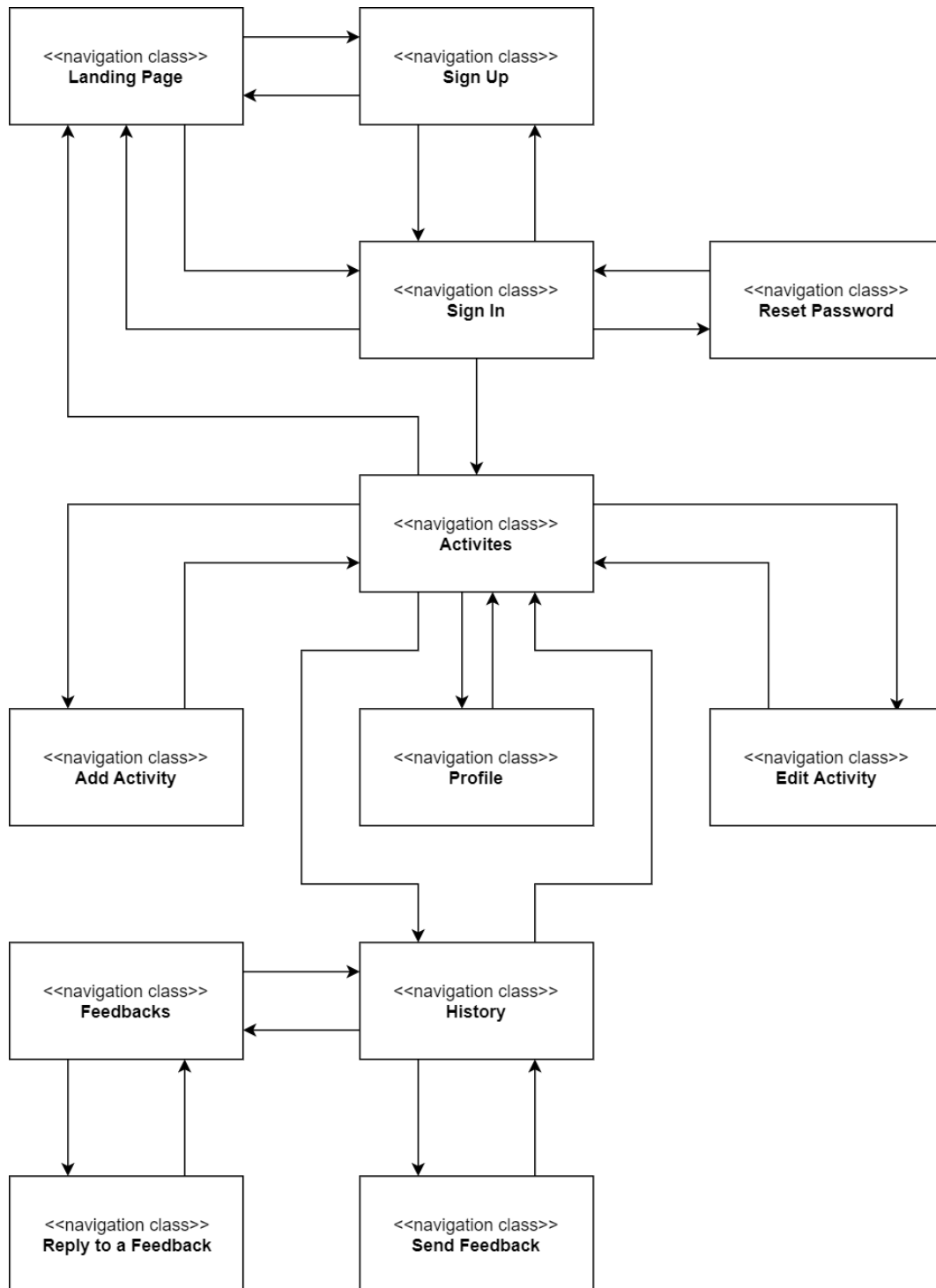
Admin:
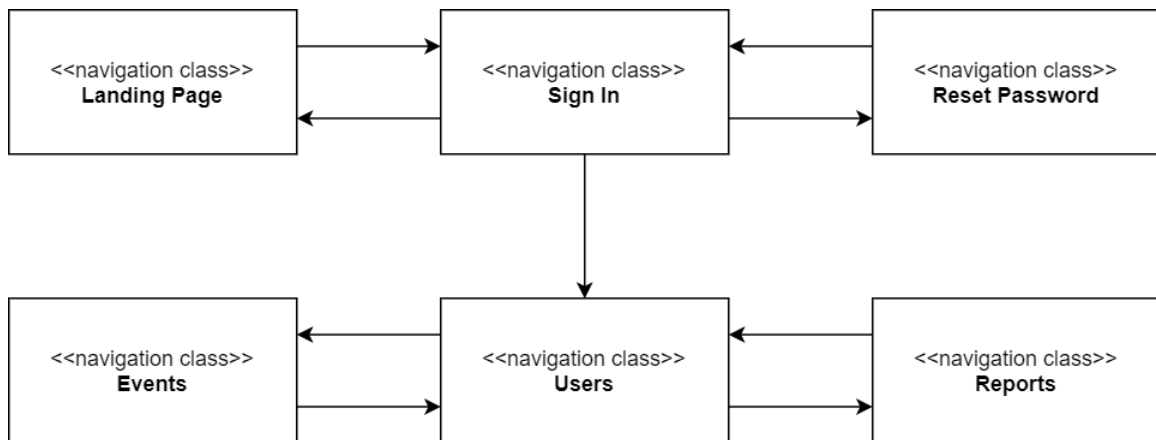
4.6. Presentation Diagram

```
┌──────────────────────────────────────────────────┐
│                    <<page>>                        │
│                     Users                          │
├──────────────────────────────────────────────────┤
│   ┌──────────────────────────────────────────┐    │
│   │           <<presenation unit>>           │    │
│   │                Header                    │    │
│   ├──────────────────────────────────────────┤    │
│   │           <<presenation unit>>           │    │
│   │                 Grid                     │    │
│   ├──────────────────────────────────────────┤    │
│   │  ┌────────────────────────────────────┐  │    │
│   │  │           <<search>>               │  │    │
│   │  └────────────────────────────────────┘  │    │
│   │  ┌──────────────┐  ┌──────────────┐       │    │
│   │  │              │  │              │       │    │
│   │  │ <<presenation│  │ <<presenation│       │    │
│   │  │    unit>>    │  │    unit>>    │       │    │
│   │  │    card      │  │    card      │       │    │
│   │  │              │  │              │       │    │
│   │  ├──────┬───────┤  ├──────┬───────┤       │    │
│   │  │<<but-│<<but- │  │<<but-│<<but- │       │    │
│   │  │ton>> │ton>>  │  │ton>> │ton>>  │       │    │
│   │  └──────┴───────┘  └──────┴───────┘       │    │
│   │  ┌──────────────┐  ┌──────────────┐       │    │
│   │  │              │  │              │       │    │
│   │  │ <<presenation│  │ <<presenation│       │    │
│   │  │    unit>>    │  │    unit>>    │       │    │
│   │  │    card      │  │    card      │       │    │
│   │  │              │  │              │       │    │
│   │  ├──────┬───────┤  ├──────┬───────┤       │    │
│   │  │<<but-│<<but- │  │<<but-│<<but- │       │    │
│   │  │ton>> │ton>>  │  │ton>> │ton>>  │       │    │
│   │  └──────┴───────┘  └──────┴───────┘       │    │
│   │                                          │    │
│   └──────────────────────────────────────────┘    │
│                                                    │
└──────────────────────────────────────────────────┘
```

```
┌─────────────────────────────────────────────────────────────┐
│                         <<page>>                            │
│                         Activities                          │
├─────────────────────────────────────────────────────────────┤
│                                                             │
│   ┌─────────────────────────────────────────────────────┐  │
│   │              <<presenation unit>>                   │  │
│   │                    Header                           │  │
│   ├─────────────────────────────────────────────────────┤  │
│   │              <<presenation unit>>                   │  │
│   │                    Grid                             │  │
│   ├─────────────────────────────────────────────────────┤  │
│   │  ┌───────────────────────────────────────────────┐  │  │
│   │  │              <<search>>                       │  │  │
│   │  └───────────────────────────────────────────────┘  │  │
│   │  ┌──────────────────────┐  ┌──────────────────────┐ │  │
│   │  │                      │  │                      │ │  │
│   │  │   <<presenation     │  │   <<presenation      │ │  │
│   │  │      unit>>          │  │      unit>>          │ │  │
│   │  │      card            │  │      card            │ │  │
│   │  │                      │  │                      │ │  │
│   │  ├──────┬──────┬────────┤  ├──────┬──────┬────────┤ │  │
│   │  │<<but.│<<but.│<<but.  │  │<<but.│<<but.│<<but.  │ │  │
│   │  └──────┴──────┴────────┘  └──────┴──────┴────────┘ │  │
│   │                                                     │  │
│   │  ┌──────────────────────┐  ┌──────────────────────┐ │  │
│   │  │                      │  │                      │ │  │
│   │  │   <<presenation     │  │   <<presenation      │ │  │
│   │  │      unit>>          │  │      unit>>          │ │  │
│   │  │      card            │  │      card            │ │  │
│   │  │                      │  │                      │ │  │
│   │  ├──────┬──────┬────────┤  ├──────┬──────┬────────┤ │  │
│   │  │<<but.│<<but.│<<but.  │  │<<but.│<<but.│<<but.  │ │  │
│   │  └──────┴──────┴────────┘  └──────┴──────┴────────┘ │  │
│   │                                                     │  │
│   └─────────────────────────────────────────────────────┘  │
└─────────────────────────────────────────────────────────────┘
```

```
<<page>>
Reports

    <<presenation unit>>
    Header

    <<text>>
    report


    <<text>>
    users

            <<diagram>>

    <<text>>
    events

            <<diagram>>

    <<text>>
    feedbacks

            <<diagram>>
```

```
┌─────────────────────────────────────────────────────────┐
│                        <<page>>                          │
│                       New Event                          │
├─────────────────────────────────────────────────────────┤
│  ┌───────────────────────────────────────────────────┐  │
│  │             <<presenation unit>>                  │  │
│  │                    Header                         │  │
│  ├───────────────────────────────────────────────────┤  │
│  │             <<presenation unit>>                  │  │
│  │                     Grid                          │  │
│  │  ┌─────────────────────────────┐                 │  │
│  │  │         <<text>>            │                 │  │
│  │  │        new event           │                 │  │
│  │  └─────────────────────────────┘                 │  │
│  │                                                   │  │
│  │  ┌─────────────────────────────────┐             │  │
│  │  │        <<text input>>          │             │  │
│  │  └─────────────────────────────────┘             │  │
│  │  ┌─────────────────────────────────┐             │  │
│  │  │        <<text input>>          │             │  │
│  │  └─────────────────────────────────┘             │  │
│  │  ┌─────────────────────────────────┐             │  │
│  │  │        <<date input>>          │             │  │
│  │  └─────────────────────────────────┘             │  │
│  │  ┌─────────────────────────────────┐             │  │
│  │  │        <<dateinput>>           │             │  │
│  │  └─────────────────────────────────┘             │  │
│  │  ┌─────────────────────────────────┐             │  │
│  │  │        <<dateinput>>           │             │  │
│  │  └─────────────────────────────────┘             │  │
│  │  ┌─────────────────────────────────┐             │  │
│  │  │        <<dateinput>>           │             │  │
│  │  └─────────────────────────────────┘             │  │
│  │                                                   │  │
│  │  ┌──────────────┐      ┌──────────────┐          │  │
│  │  │  <<button>>  │      │  <<button>>  │          │  │
│  │  └──────────────┘      └──────────────┘          │  │
│  │                                                   │  │
│  └───────────────────────────────────────────────────┘  │
└─────────────────────────────────────────────────────────┘
```

<<page>>
History

<<presenation unit>>
Header

<<presenation unit>>
Grid

<<search>>

<<text>>
Created

<<presenation unit>>
card

<<button>> | <<button>> | <<button>>

<<presenation unit>>
card

<<button>> | <<button>> | <<button>>

<<text>>
Signed up

<<presenation unit>>
card

<<button>> | <<button>> | <<button>>

<<presenation unit>>
card

<<button>> | <<button>> | <<button>>

```
┌─────────────────────────────────────────────────┐
│                    <<page>>                       │
│                    Profile                        │
├─────────────────────────────────────────────────┤
│   ┌─────────────────────────────────────────┐     │
│   │          <<presenation unit>>           │     │
│   │               Header                    │     │
│   ├─────────────────────────────────────────┤     │
│   │          <<presenation unit>>           │     │
│   │               Grid                      │     │
│   ├─────────────────────────────────────────┤     │
│   │     ┌───────────────────────────┐       │     │
│   │     │        <<text>>           │       │     │
│   │     │        profile            │       │     │
│   │     └───────────────────────────┘       │     │
│   │                                         │     │
│   │     ┌───────────────────────────┐       │     │
│   │     │     <<text input>>        │       │     │
│   │     └───────────────────────────┘       │     │
│   │     ┌───────────────────────────┐       │     │
│   │     │     <<text input>>        │       │     │
│   │     └───────────────────────────┘       │     │
│   │     ┌───────────────────────────┐       │     │
│   │     │     <<text input>>        │       │     │
│   │     └───────────────────────────┘       │     │
│   │     ┌───────────────────────────┐       │     │
│   │     │     <<text input>>        │       │     │
│   │     └───────────────────────────┘       │     │
│   │                                         │     │
│   │     ┌───────────────────────────┐       │     │
│   │     │       <<button>>          │       │     │
│   │     └───────────────────────────┘       │     │
│   │     ┌───────────────────────────┐       │     │
│   │     │       <<button>>          │       │     │
│   │     └───────────────────────────┘       │     │
│   │                                         │     │
│   └─────────────────────────────────────────┘     │
└─────────────────────────────────────────────────┘
```

```
┌─────────────────────────────────────────────────────┐
│                    <<page>>                           │
│                    Sign In                            │
├─────────────────────────────────────────────────────┤
│  ┌───────────────────────────────────────────────┐   │
│  │            <<presenation unit>>               │   │
│  │                 Header                         │   │
│  ├───────────────────────────────────────────────┤   │
│  │            <<presenation unit>>               │   │
│  │                  Grid                          │   │
│  ├───────────────────────────────────────────────┤   │
│  │                                                │   │
│  │            ┌──────────┐                        │   │
│  │            │ <<img>>  │                        │   │
│  │            └──────────┘                        │   │
│  │         ┌─────────────────────┐                │   │
│  │         │     <<text>>        │                │   │
│  │         │     sign in         │                │   │
│  │         └─────────────────────┘                │   │
│  │      ┌───────────────────────────┐             │   │
│  │      │     <<text input>>        │             │   │
│  │      └───────────────────────────┘             │   │
│  │      ┌───────────────────────────┐             │   │
│  │      │     <<text input>>        │             │   │
│  │      └───────────────────────────┘             │   │
│  │      ┌───────────────────────────┐             │   │
│  │      │      <<button>>           │             │   │
│  │      └───────────────────────────┘             │   │
│  │   ┌────────────┐        ┌────────────┐         │   │
│  │   │ <<Anchor>> │        │ <<Anchor>> │         │   │
│  │   └────────────┘        └────────────┘         │   │
│  │                                                │   │
│  └───────────────────────────────────────────────┘   │
└─────────────────────────────────────────────────────┘
```

<<page>>
Sign up

<<presenation unit>>
Header

<<presenation unit>>
Grid

<<img>>

<<text>>
sign up

<<text input>>

<<text input>>

<<text input>>

<<text input>>

<<button>>

<<Anchor>>

<<page>>
send Feedback

<<presenation unit>>
Header

<<presenation unit>>
Grid

<<text>>
send feedback

<<text field>>

<<button>>   <<button>>

<<page>>
Feedback

<<presenation unit>>
Header

<<text>>
feedbacks

<<presenation unit>>
card

<<button>>

```
+--------------------------------------------------------------+
|                        <<page>>                              |
|                      Reply Feedback                          |
+--------------------------------------------------------------+
|  +--------------------------------------------------------+  |
|  |              <<presenation unit>>                      |  |
|  |                   Header                               |  |
|  +--------------------------------------------------------+  |
|  |              <<presenation unit>>                      |  |
|  |                    Grid                                |  |
|  +--------------------------------------------------------+  |
|  |                                                        |  |
|  |       +------------------------------------+           |  |
|  |       |            <<text>>                |           |  |
|  |       |          reply feedback            |           |  |
|  |       +------------------------------------+           |  |
|  |                                                        |  |
|  |       +------------------------------------+           |  |
|  |       |                                    |           |  |
|  |       |                                    |           |  |
|  |       |          <<text field>>            |           |  |
|  |       |                                    |           |  |
|  |       |                                    |           |  |
|  |       +------------------------------------+           |  |
|  |                                                        |  |
|  |    +----------------+     +----------------+           |  |
|  |    |  <<button>>    |     |  <<button>>    |           |  |
|  |    +----------------+     +----------------+           |  |
|  |                                                        |  |
|  |                                                        |  |
|  |                                                        |  |
|  +--------------------------------------------------------+  |
+--------------------------------------------------------------+
```

```
+-----------------------------------------------------------+
|                      <<page>>                             |
|                   Reset Password                          |
+-----------------------------------------------------------+
|                                                           |
|   +---------------------------------------------------+   |
|   |            <<presenation unit>>                   |   |
|   |                  Header                           |   |
|   +---------------------------------------------------+   |
|   |            <<presenation unit>>                   |   |
|   |                  Grid                             |   |
|   +---------------------------------------------------+   |
|   |                                                   |   |
|   |              +-----------+                        |   |
|   |              | <<img>>   |                        |   |
|   |              +-----------+                        |   |
|   |                                                   |   |
|   |        +---------------------------------+        |   |
|   |        |         <<text >>               |        |   |
|   |        |       reset password            |        |   |
|   |        +---------------------------------+        |   |
|   |                                                   |   |
|   |        +---------------------------------+        |   |
|   |        |        <<text input>>           |        |   |
|   |        +---------------------------------+        |   |
|   |                                                   |   |
|   |        +---------------------------------+        |   |
|   |        |         <<button>>              |        |   |
|   |        +---------------------------------+        |   |
|   |                                                   |   |
|   |                                                   |   |
|   |                                                   |   |
|   |                                                   |   |
|   |                                                   |   |
|   |                                                   |   |
|   |                                                   |   |
|   |                                                   |   |
|   |                                                   |   |
|   +---------------------------------------------------+   |
|                                                           |
+-----------------------------------------------------------+
```
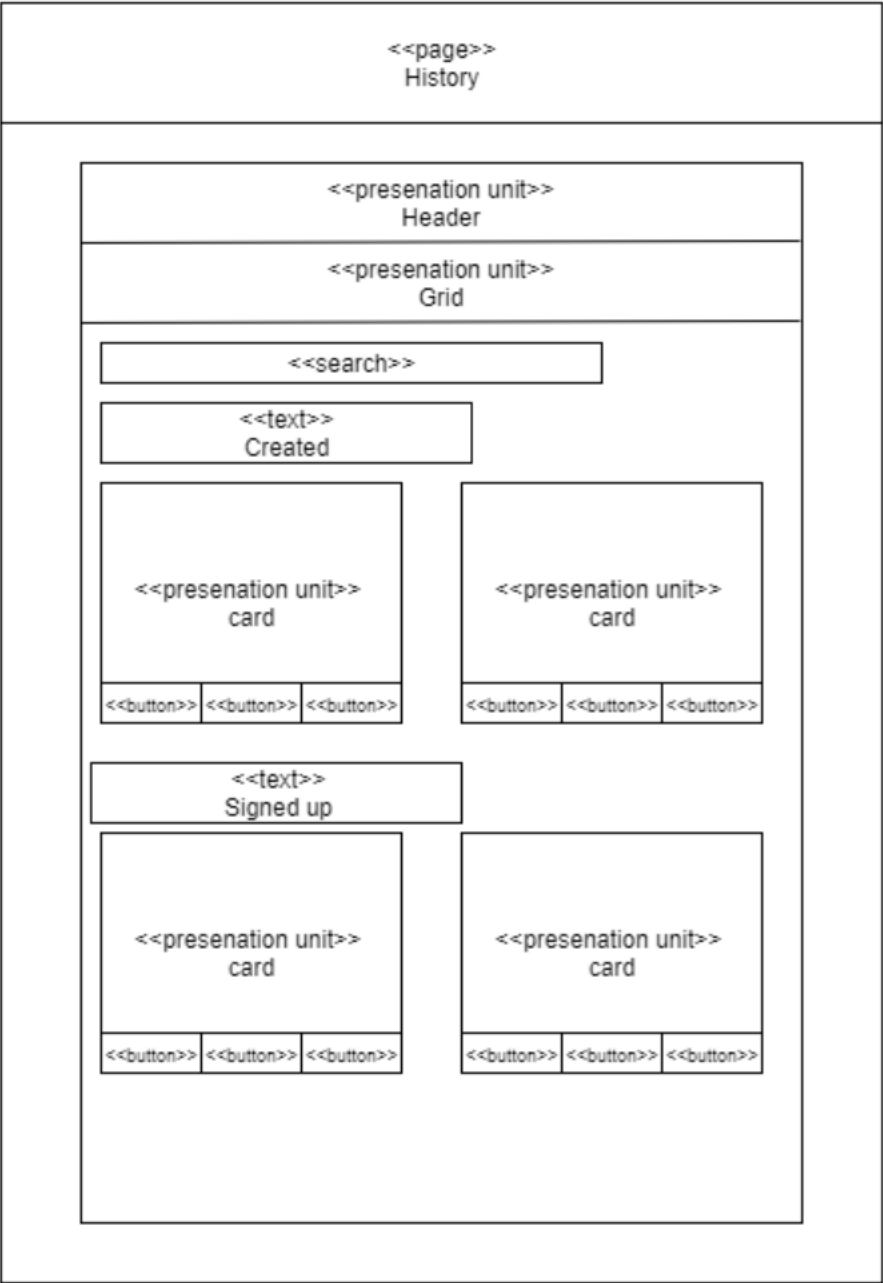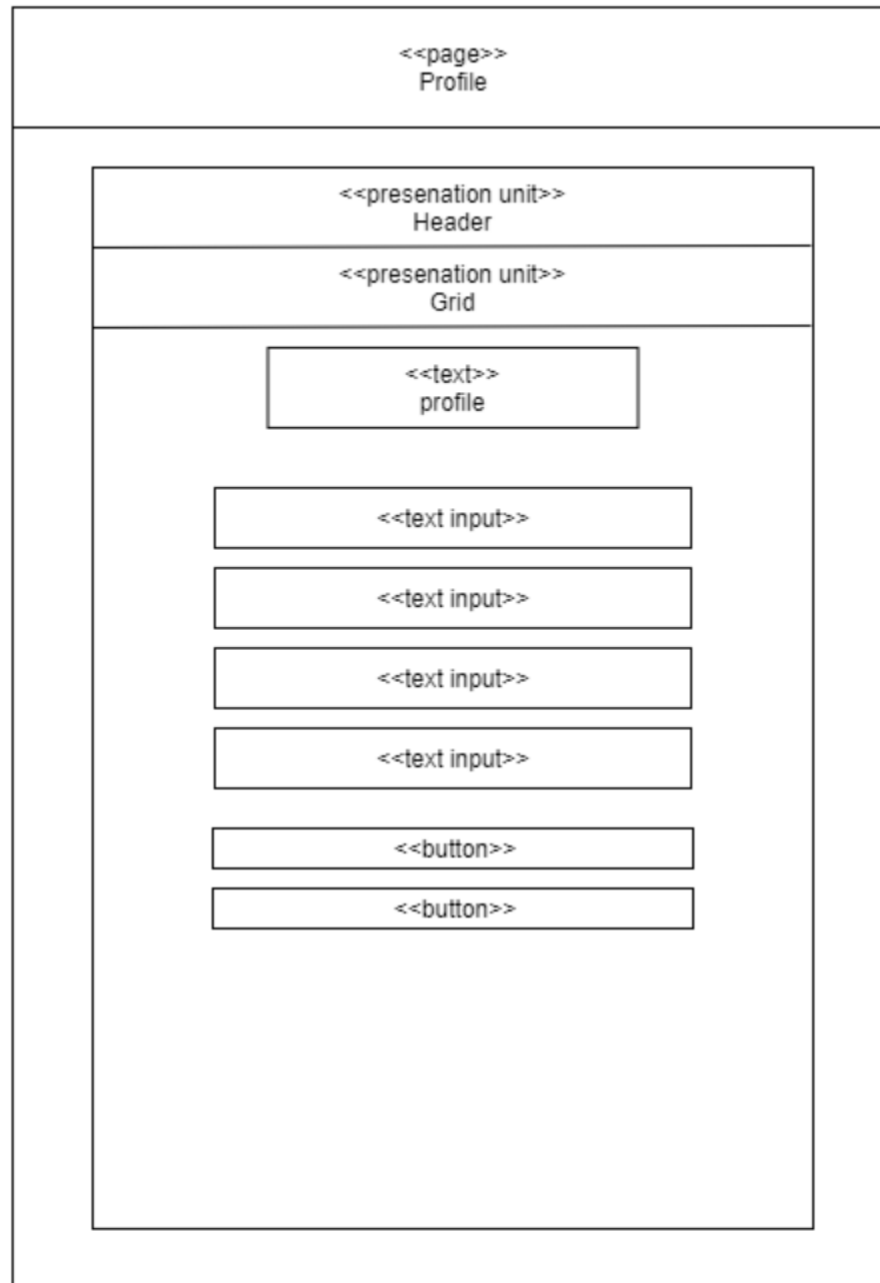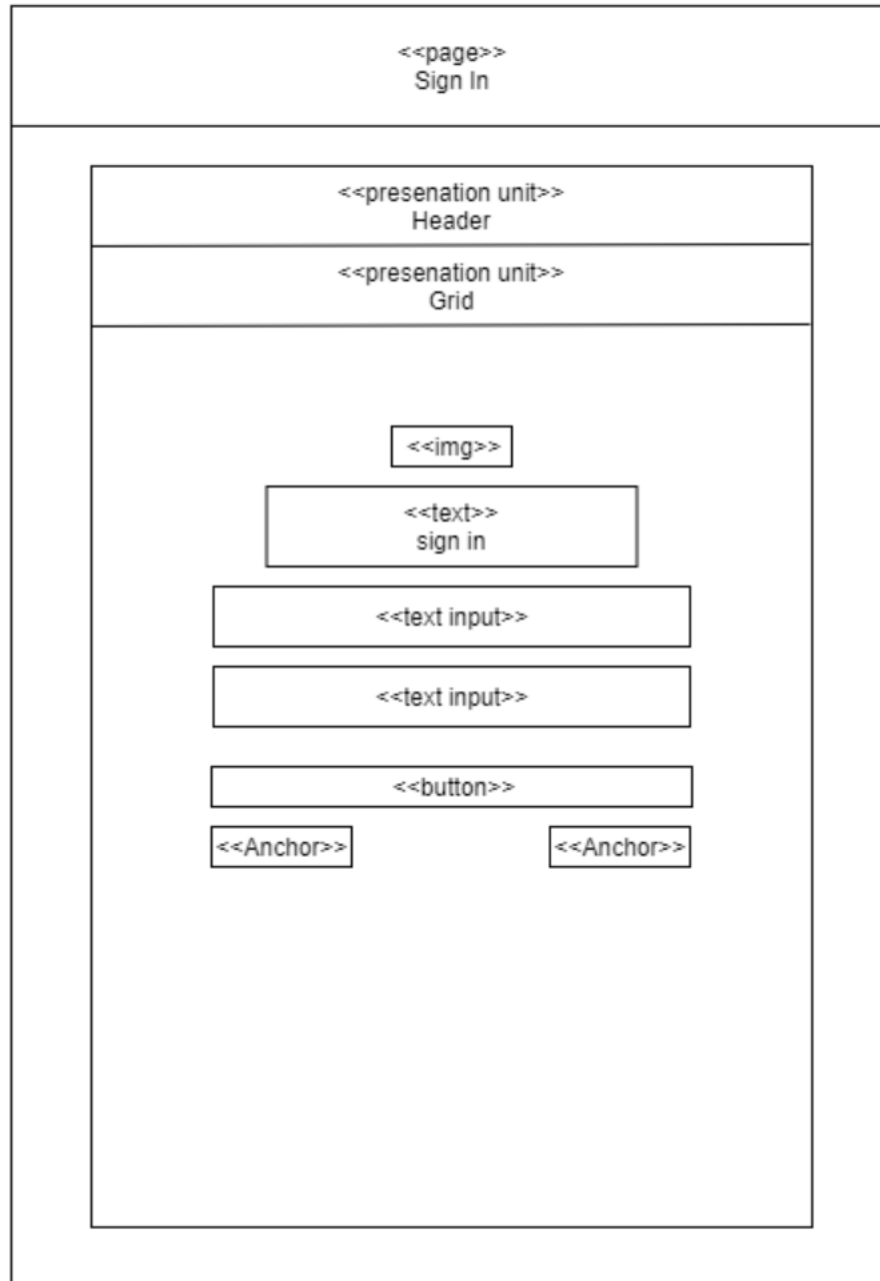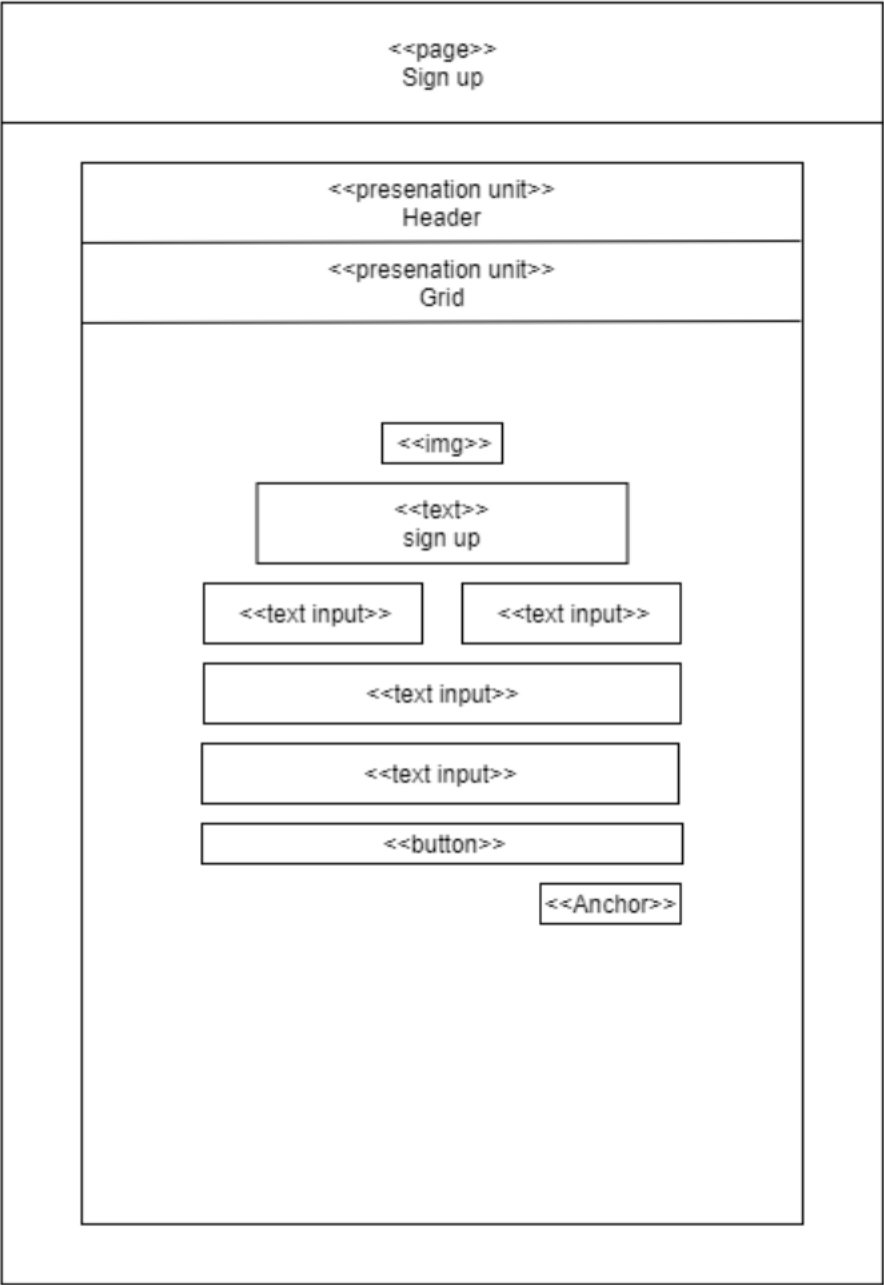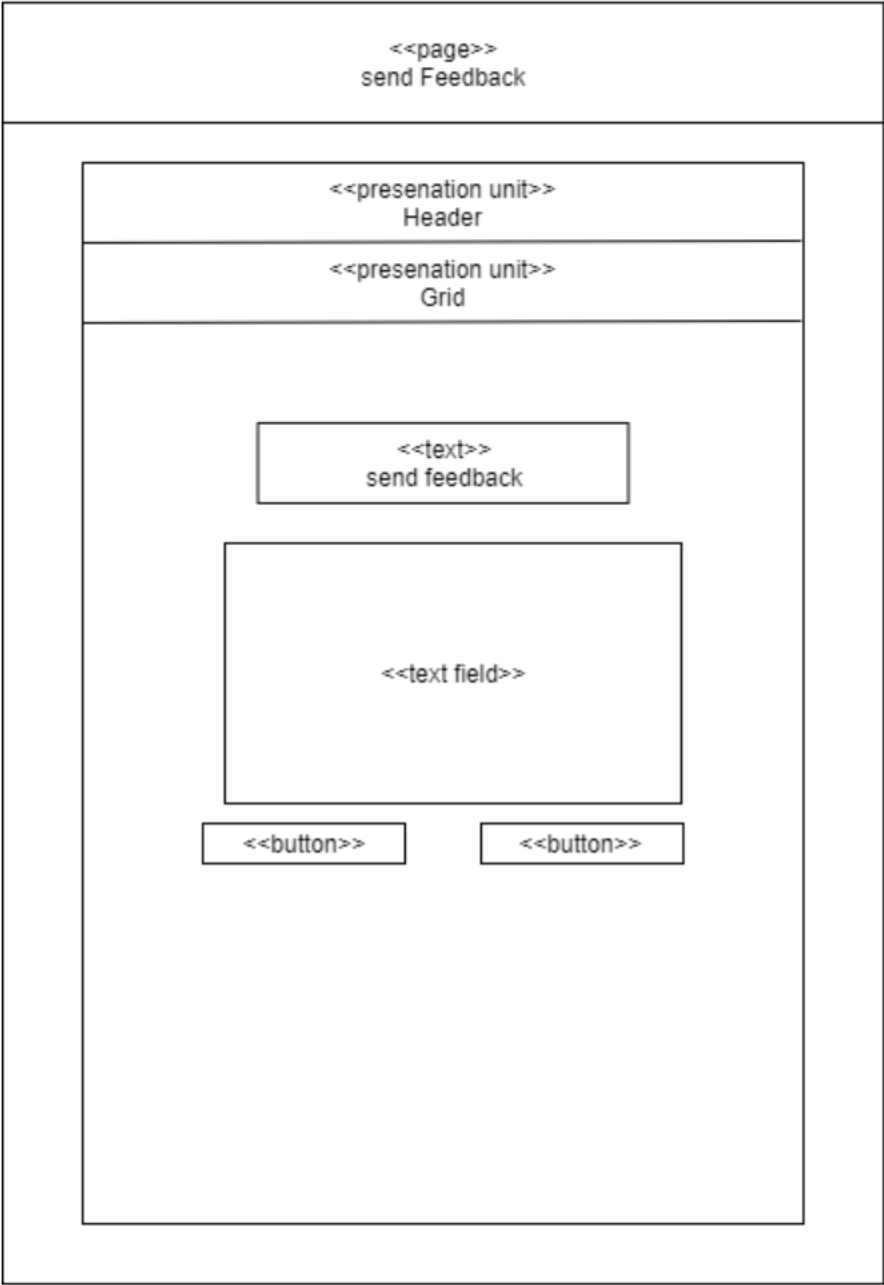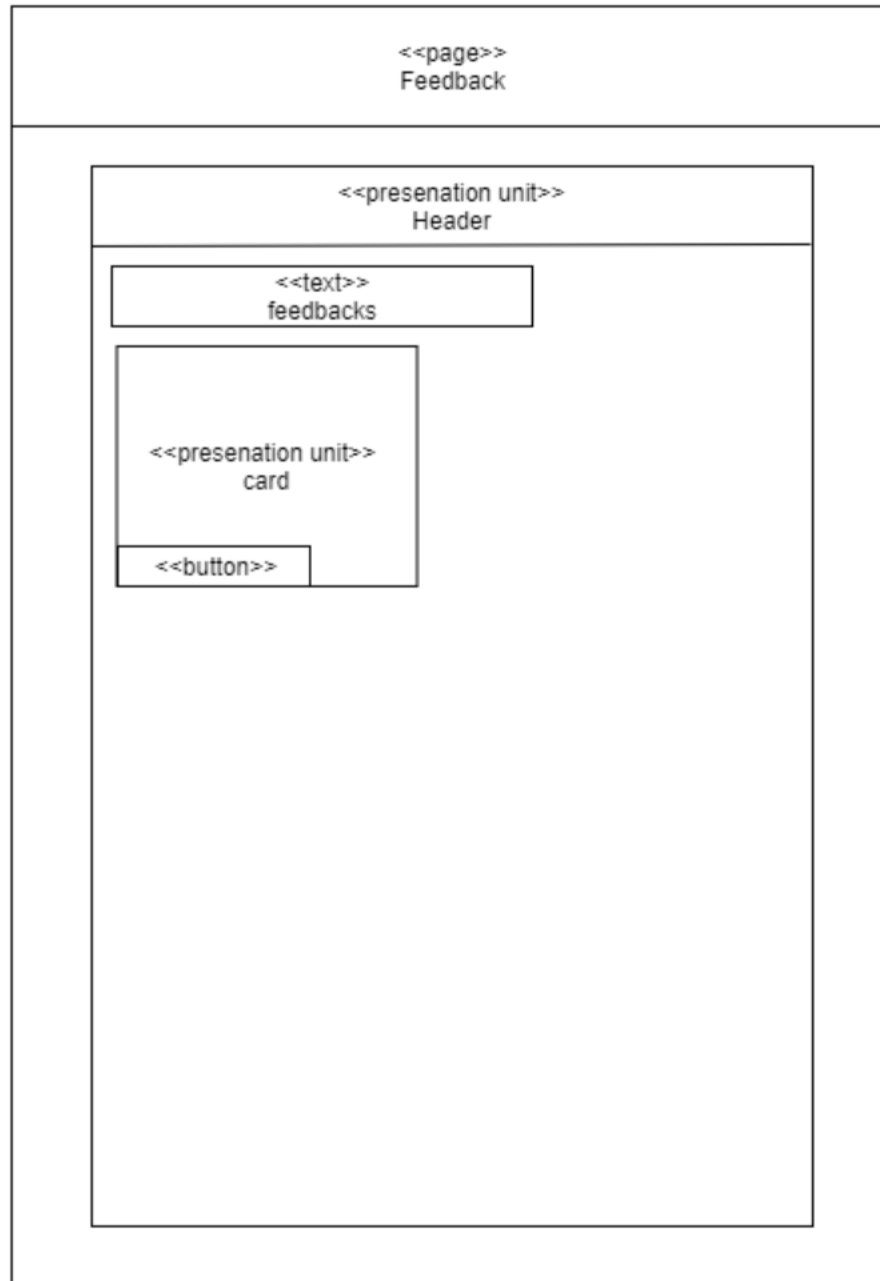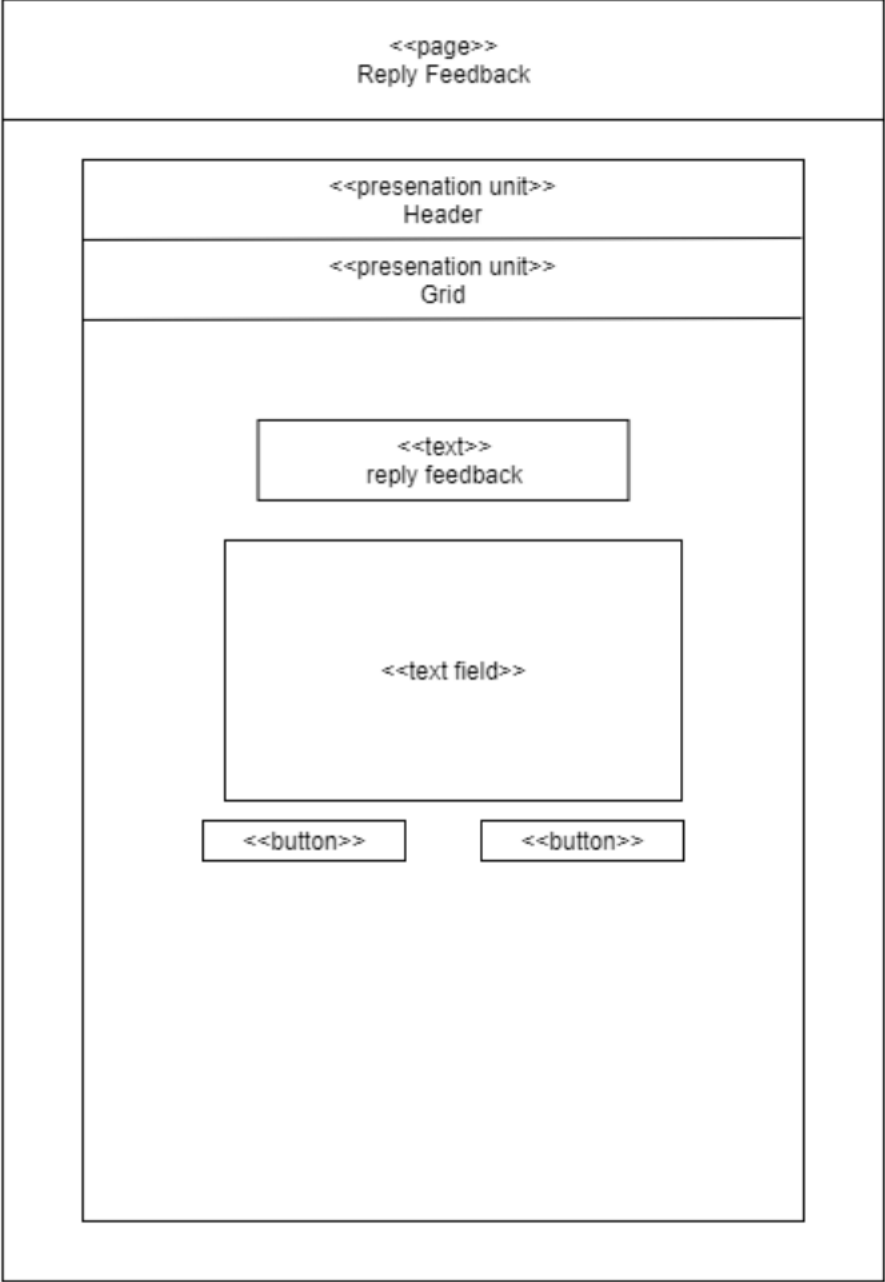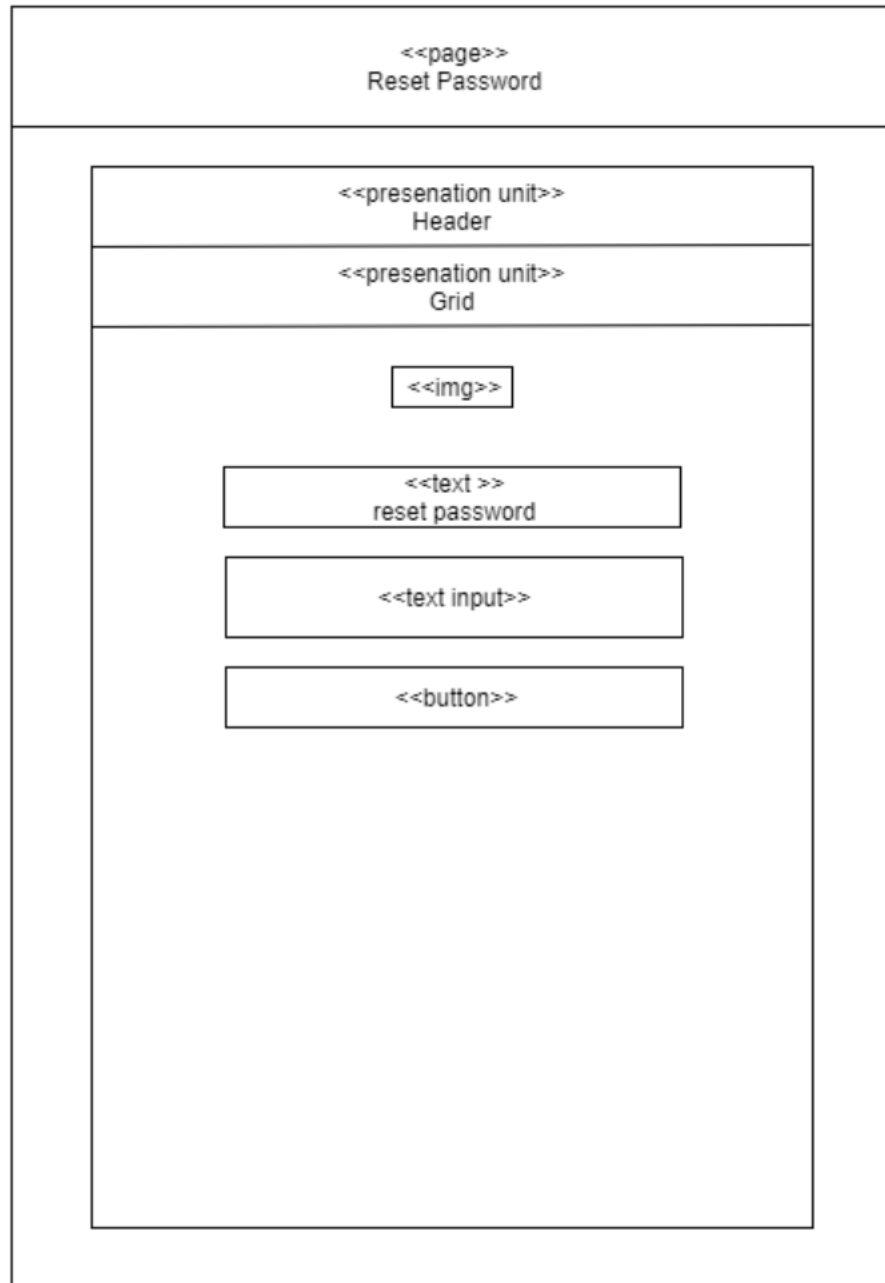
4.7. User Interface

Landing page

🔍 Search...

football

footbal in field 5
Starts on 2019-11-20 at 19:00:00

JOIN

baskerball

basketball in building 11
Starts on 2019-11-21 at 19:00:00

JOIN

football

footbal in field 5
Starts on 2019-11-22 at 19:00:00

JOIN

Users

User Name
User Email

ACCEPT   REJECT

User Name
User Email

ACCEPT   REJECT

User Name
User Email

BLOCK   DELETE

User Name
User Email

BLOCK   DELETE

User Name
User Email

BLOCK   DELETE

User Name
User Email

BLOCK   DELETE

Activities

SIGN IN SIGN UP

🔍 Search...

Events

football	baskerball	football
footbal in field 5	basketball in building 11	footbal in field 5
Starts on 2019-11-20 at 19:00:00	Starts on 2019-11-21 at 19:00:00	Starts on 2019-11-22 at 19:00:00
ACCEPT/REJECT EDIT DELETE	ACCEPT/REJECT EDIT DELETE	ACCEPT/REJECT EDIT DELETE

Reports

KFUPM
Events

SIGN IN SIGN UP

Reprots

Users

| 33.33% accepted | 33.33% waiting | 33.33% blocked |

Events

100.00% active

Feedbacks

100.00% pending feedback

New Event

New Event

Event Name *

Event Description *

Starting Date
20/11/2019

Starting Time
03:29 AM

Ending Date
20/11/2019

Ending Time
03:29 AM

SUBMIT   CANCEL

Edit Event

Edit Event

Event Name *
football

Event Description *
footbal in field 5

Starting Date
20/11/2019

Starting Time
03:29 AM

Ending Date
20/11/2019

Ending Time
03:29 AM

SAVE   DISCARD CHANGES

History

KFUPM
Events

SIGN IN   SIGN UP

🔍 Search...

You Created

football

footbal in field 5
Starts on 2019-11-20 at 19:00:00

ACCEPT/REJECT   EDIT   DELETE

You Signed Up For

baskerball

basketball in building 11
Starts on 2019-11-21 at 19:00:00

CANCEL   SEND FEEDBACK

STATUS: WAITING

football

footbal in field 5
Starts on 2019-11-22 at 19:00:00

CANCEL   SEND FEEDBACK

STATUS: WAITING

Profile

KFUPM
Events

SIGN IN   SIGN UP

Profile

First Name
Omar

Last Name
Alghamdi

Email
omar@kfupm.com

Password
•••••••   👁

SAVE CHANGES

DISCARD CHANGES

Sign in

Sign in

Email Address *

Password *

SIGN IN

Forgot password?   Don't have an account? Sign Up

Sign Up

Sign up

First Name *   Last Name *

Email Address *

Password *

SIGN UP

Already have an account? Sign in

Send Feedback

Feedback

Your Feedback *

SUBMIT   CANCEL

Feedback

Feedbacks

By: Abdullah

great match

REPLY

Reply Feedback

Reply

Your Reply *

SUBMIT   CANCEL

Reset Password

Enter your email to rest your password

Email Address *

REST PASSWORD