

FINAL PROJECT



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1. Software Requirement Specification

1.1 Introduction

1.1.1 Aim of the Document

The aim of this project is to simplify the choice of a meeting point among people belonging to a same group (e.g. teenagers' group, working group, best friends' group...), ultimately a software that can allow in very easy way the choice of the perfect target for a reunion according to different needs of a group members, moreover to allow linking among different groups through join requests to other meetings of other groups.

1.1.2 Overview of the defined system

Thanks to this system it's possible to search groups all over the world for then send a **-link request-** in order to join them, create a group and then send a **-link invitation-** to specific users or post a **-link announcement-** on a specific zone in order to make known other people who can join it, moreover it's possible to post a **-link search-** in order to make known other groups about a possible new member. The focus is the planning of the **Best Meeting Point** depending to the specific group and so to the people inside it, in other words according to different needs of the moment, in order to make it possible there's the possibility to fill in a questionnaire and then, at the end of it, notify all the members of own group which can accept or refuse the chosen meeting point and, in accept case, evaluate it as 'Good Idea' or 'Bad Idea', this for filter all the ideas and choose that one has taken more consents, so the best, at the end of all, the group's owner can schedule the meeting on a map, generated with the creation of its group, that represents beyond geolocation of all the group's members also the location of the 'Best Meeting Point'

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chosen before, the schedule is also visible to the other groups who can send a **-link meeting-** for organize a reunion with the group of meeting in that place and this one can accept or refuse the invitation, in the first case if the meeting has gone in the right way then it's the possibility to apply a **-link fusion-** among them in order to create a **Super Group**, without the deletion of previous groups. According to the need to getting as much information as possible about the chosen meeting point, the system offers the possibility of interaction among users and members staff of a meeting point through the **Meeting Place Page** where everyone can post questions there and receive responses directly in the own group, there is also the opportunity to view all the details of a meeting point and evaluate either single staff or the same meeting point by a score from 1 star to 5 stars and by comments for make known other groups about quality of this, even if it's allowed only after a group have obtained the license to do it by the staff, called **-Link Review-**, and this happen when group is register by the staff once it goes in that place; also, every group has gone in a meeting point are marked on all the map of the other groups, so everybody can verify the popularity of that place and make known about single person belonging to these groups; so, according to all of this, the system also provides login as staff member who can either creates the Page of a local it works or takes part of this one created by another colleague.

1.1.3 Operational Settings

This Software can be executed on every Laptop, PC that has a GPS system integrated into itself.

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1.1.4 Related systems - Pros & Cons

- LinkedIn -

Pros:

LinkInGG allows maintaining a ‘link’ among groups of people instead of among lists of people like LinkedIn.

Cons:

LinkInGG doesn’t allow ‘free link’ because a ‘link request’ has to be accepted by the target group owner, unlike the LinkedIn policy.

- Telegram -

Pros:

LinkInGG allows fusions among different groups instead of Telegram that allows only joining different groups that can’t communicate with each other.

Cons:

LinkInGG doesn’t allow secret chats because the focus is on the groups themselves while Telegram allows these ones.

- Doodle -

Pros:

LinkInGG allows geolocation of a meeting point after the apposite questionnaire has been terminated, instead, Doodle doesn’t have this capability.

Cons:

LinkInGG doesn’t allow anonymous questionnaire instead of Doodle that can do it.

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1.2 User Stories

1. As a user, I want to send join requests to groups chat, so that I can make bonds with new people.
2. As a user, I want to post search announcements for group chats, so that I can enlarge my knowledge network.
3. As a user, I want to create group chats, so that I can invite other users to join them.
4. As a group member, I want to send messages to the personal pages of meeting points, so that I can ask something related to their offered services.
5. As a group member, I want to review the meeting points inside their personal pages, so that I can give my opinion about the places I've gone.
6. As a group member, I want to fill-in a questionnaire with open and/or closed questions, so that I can decide on a meeting point according to my needs.
7. As a group member, I want to share one meeting point with one group I belong to after the questionnaire, so that I can suggest a reunion to the members.
8. As a group member, I want to evaluate a meeting point proposed, so that I can make known the others of my group about my preference.
9. As a group owner, I want to post announcements of groups chat created, so that I know other people if they join it.
10. As a group owner, I want to send requests to participate in other meetings of other groups, so that I can evaluate if enlarge a group of mine or not.
11. As a group owner, I want to accept or refuse requests of meetings participation, so that I can make known to the other groups if I am interested or not.

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12. As a group owner, I want to choose to merge or not groups into a larger group without the deletion of previous ones after meetings with these, so that I can enlarge my set of acquaintances.
13. As a group owner, I want to save meeting points into the location maps of my groups, so that I can realize a reminder for reunions.
14. As a member staff, I want to give a license for the review of the place I work to groups have gone there by the personal page I've the access, so that I can allow feedback.
15. As a member staff, I want to manage an inbox inside the pages of the places I work in which groups members can leave messages, so that I can clarify their doubts.

1.3 Functional Requirements

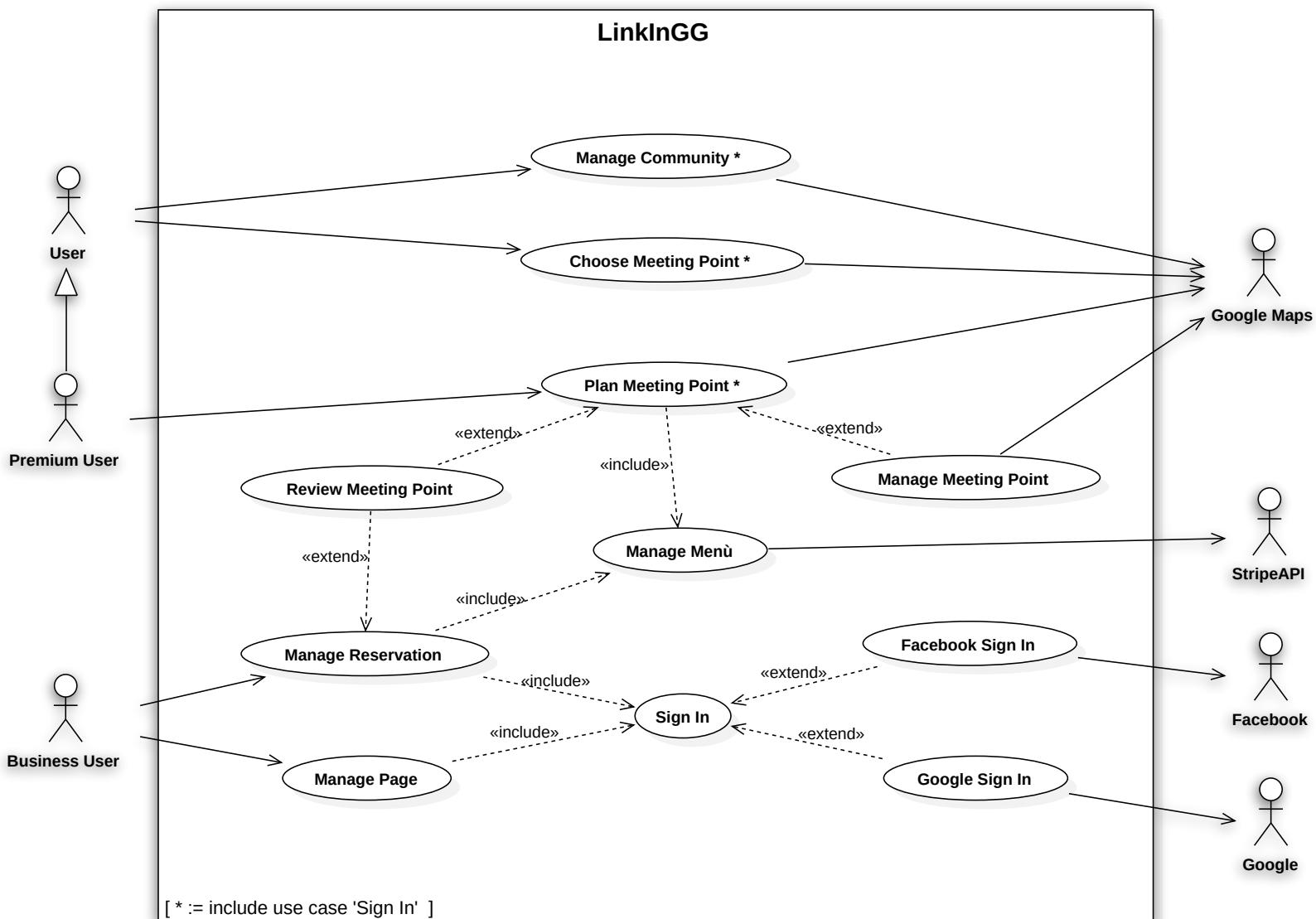
1. The system shall provide a search mode to display groups that match the following filters: nickname, name or owner's province.
 2. The system shall provide a search mode for places that satisfy the answers of a questionnaire that has the scope to capture: type of meeting, type of vehicle to reach the meeting point, budget, meeting date, meeting time, and geographic area where to focus the search.
 3. The system shall provide a sharing mode for only one meeting point, among those the questionnaire returns, with only one group, inside a detail window that shows the following meeting information: name, evaluation, date, time, distance, participants.
 4. The system shall provide the capability to set up groups with names, nicknames, and image profiles that display only owners and members.
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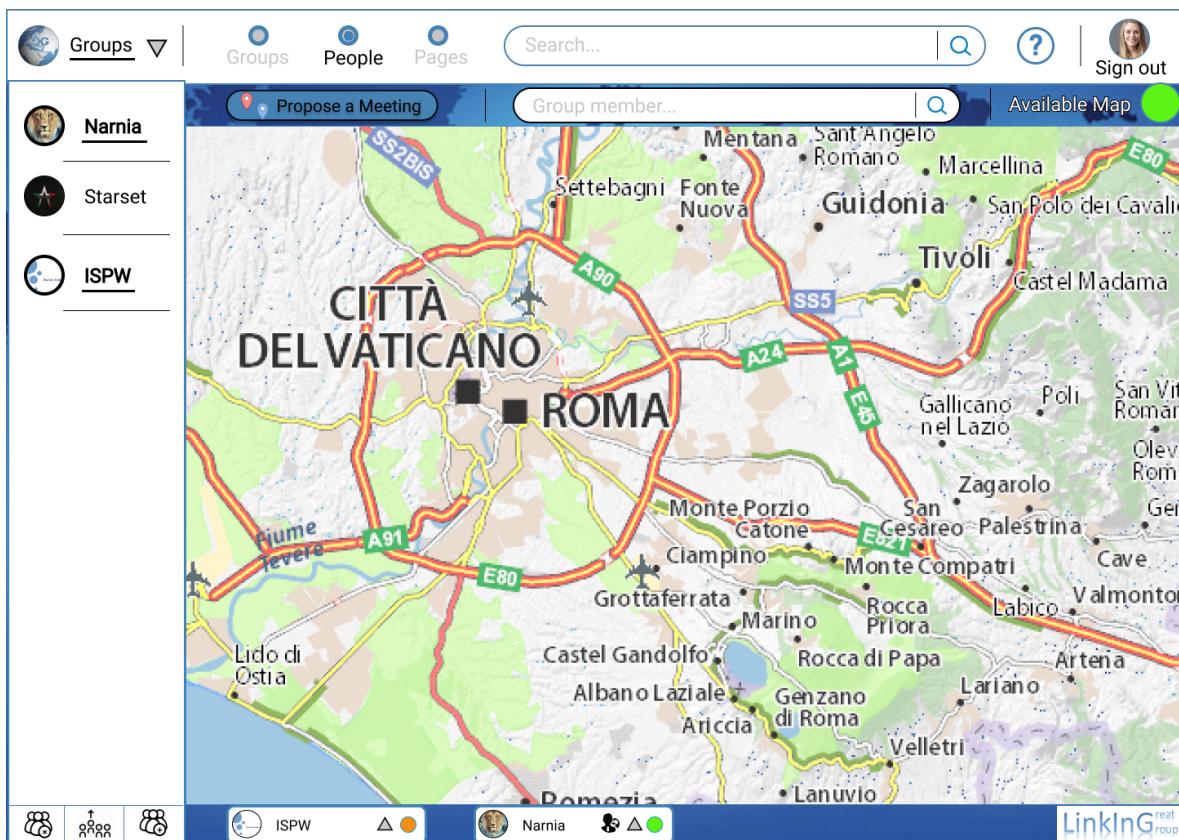
5. The system shall provide a search mode to discover groups members' location.
6. The system shall provide the capability to send link requests* to groups.
7. The system shall provide a search mode to display link requests* a group receives only for the user who owns that group.
8. The system shall provide the capability to add users into groups only for their owners through the acceptance of link requests*.
9. The system shall provide a mode for the group owners to refuse link requests*.
10. The system shall provide a detail window after selecting one of the meeting points present at the end of the questionnaire that shows its name, evaluation, distance and travel time.
11. The system shall provide a participation mode to the meeting points inside their detail windows.
12. The system shall provide a sign-up phase with the following fields: name, surname, address, email, phone, and account*, with the generation of username and password credentials at the end of the registration.
13. The system shall provide a sign-in phase with username and password credentials, and the generation of a dashboard*.
14. The system shall provide the capability to display the following groups members' details: image, name, surname, and nickname.
15. The system shall provide the capability to modify nickname.

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1.4 Use Cases: Overview Diagram



2. Storyboards



Meeting Point Choice...

Share your choice | Sign out

Type of meeting : Lunch Dinner Relaxation Work

Type of vehicle : Car Metro Bus Feet

Number of people : Budget :

Favorite Area :

In order to choose your favorite area, please move the hand you see and take a circular zone in which your meeting will take place.

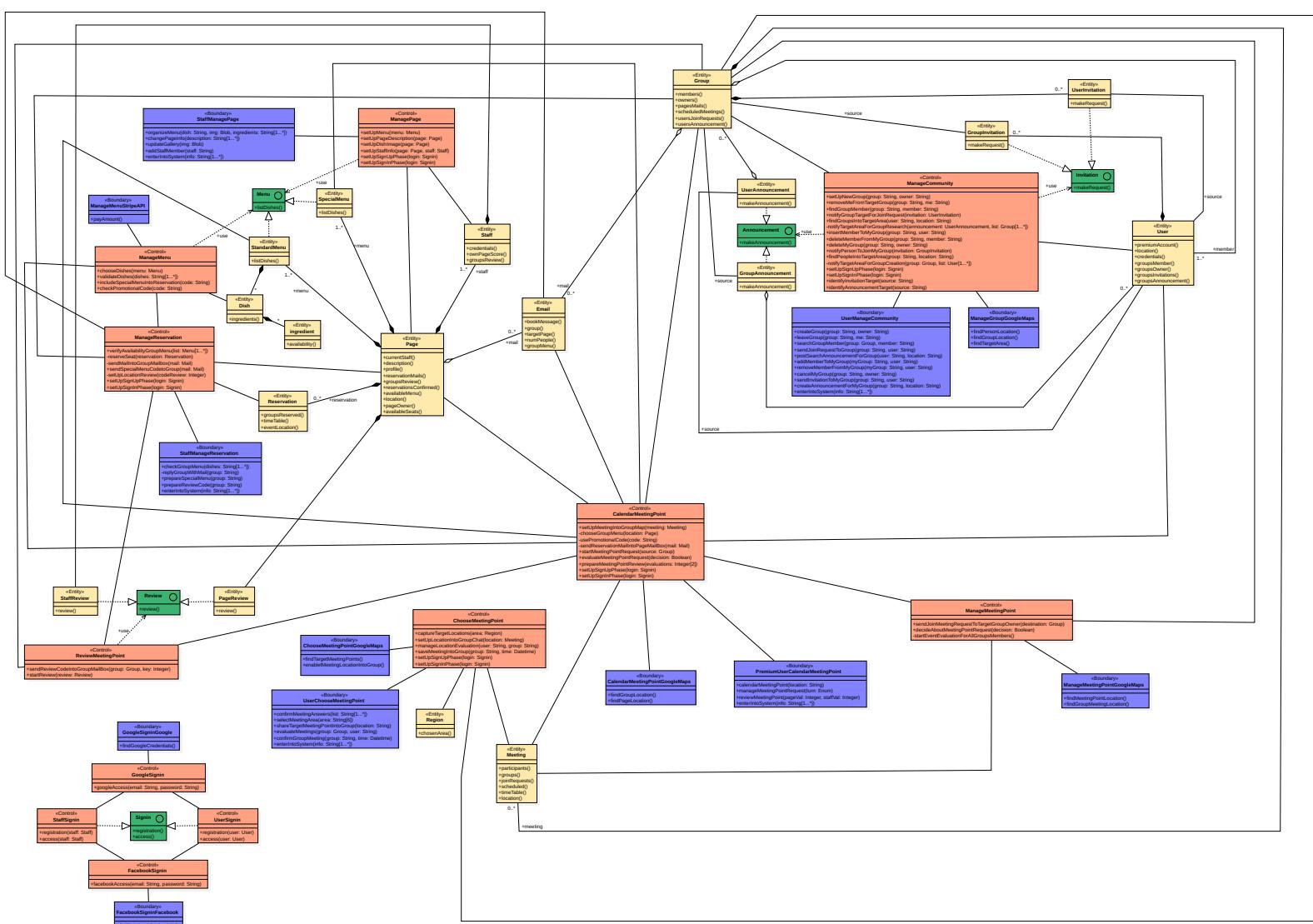
NOTE: you can extend and minimize the area of interest by double-clicking on the hand and then moving to inside and outside.

View choices

Linking Group

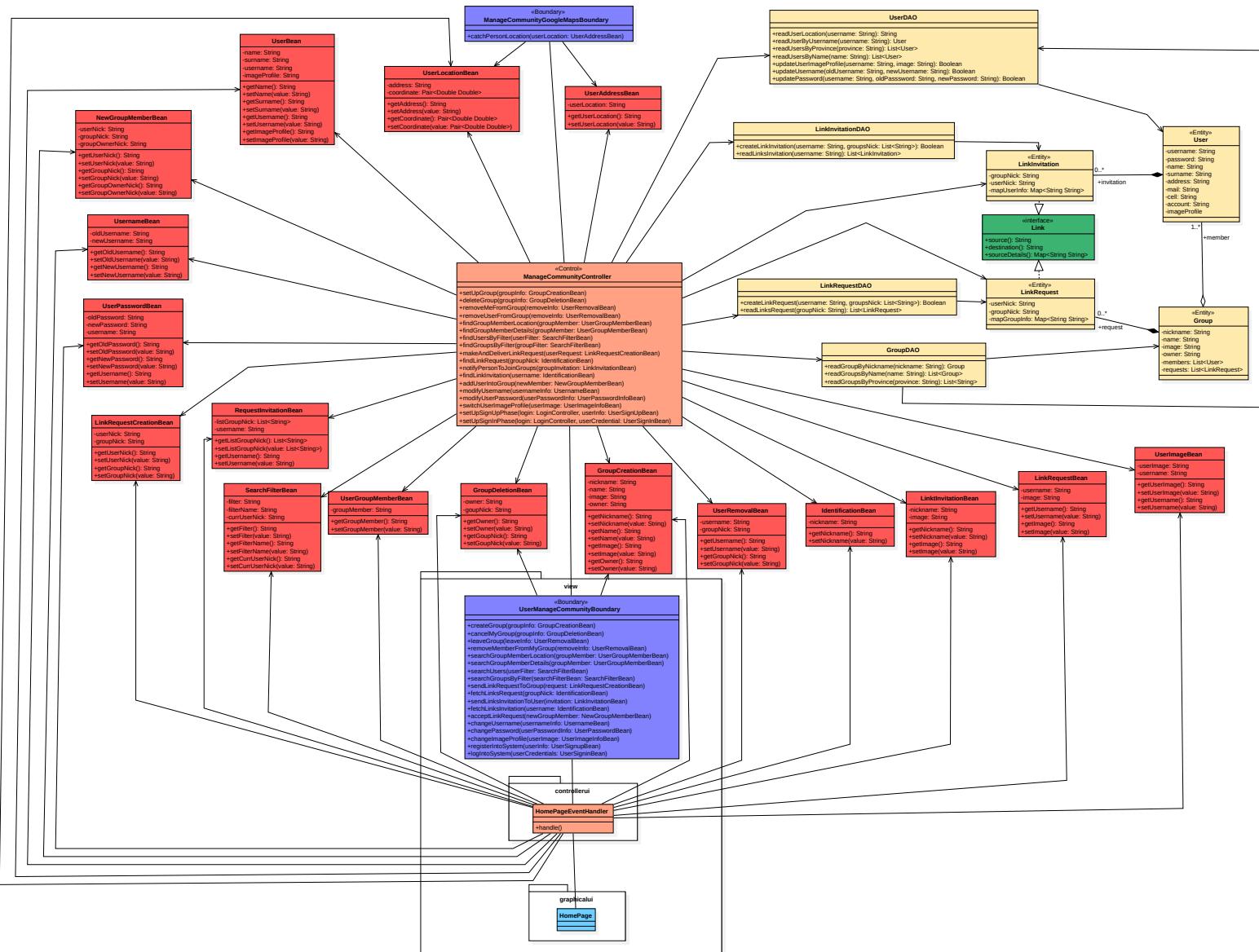
3. Design

3.1 VOPC



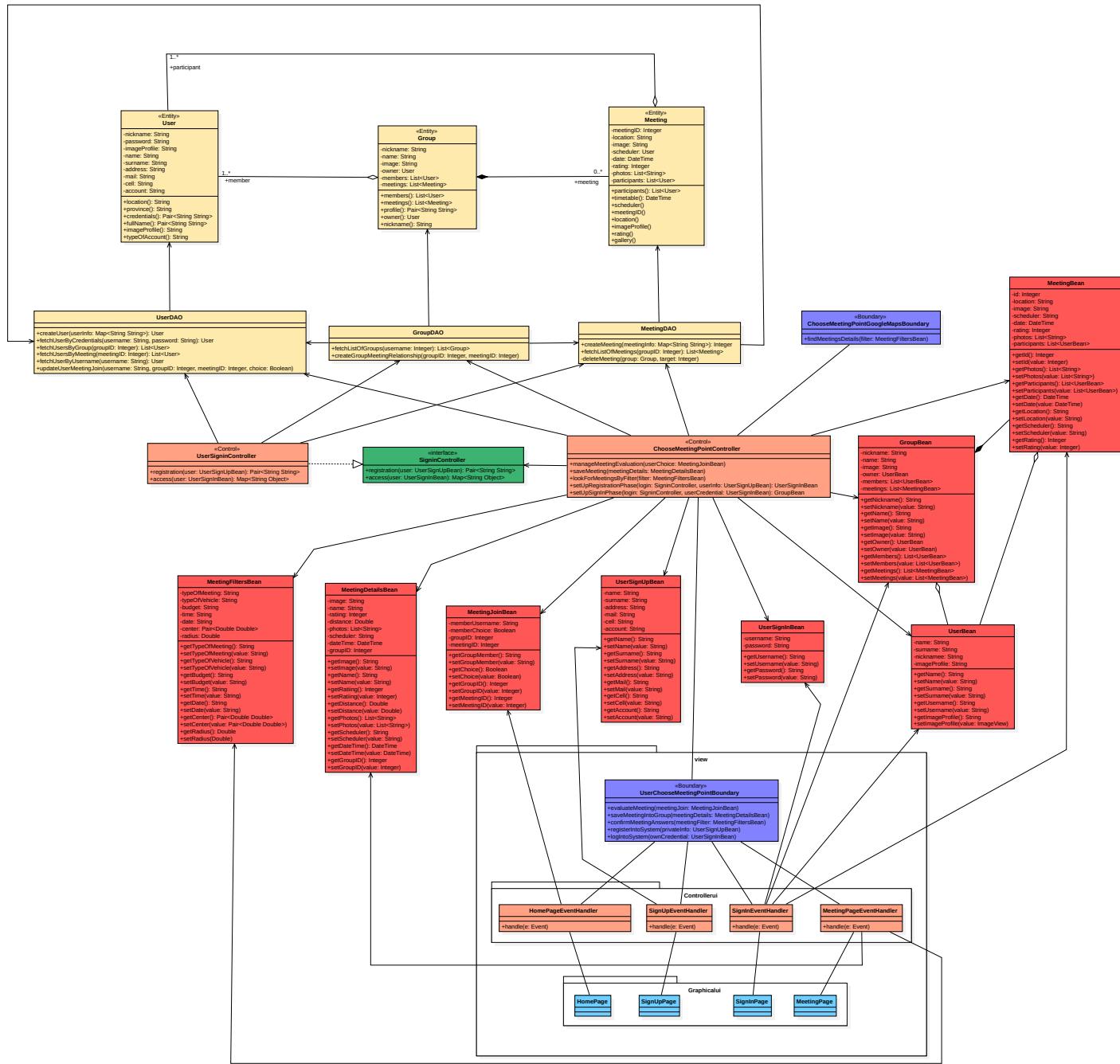
3. Design

3.2 Design-Level Diagram



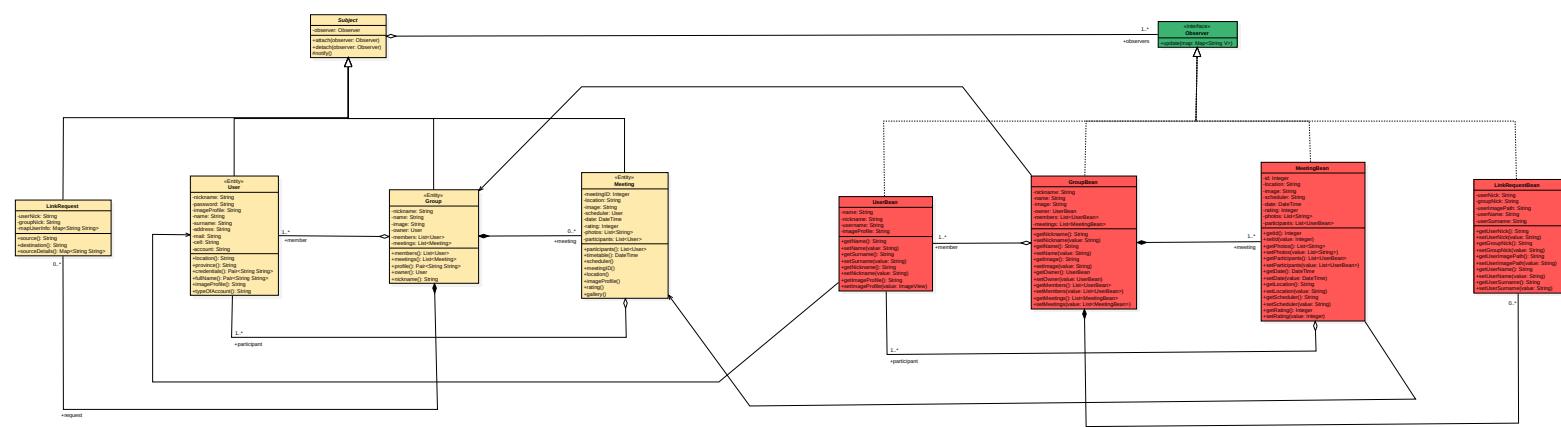
3. Design

3.2 Design-Level Diagram



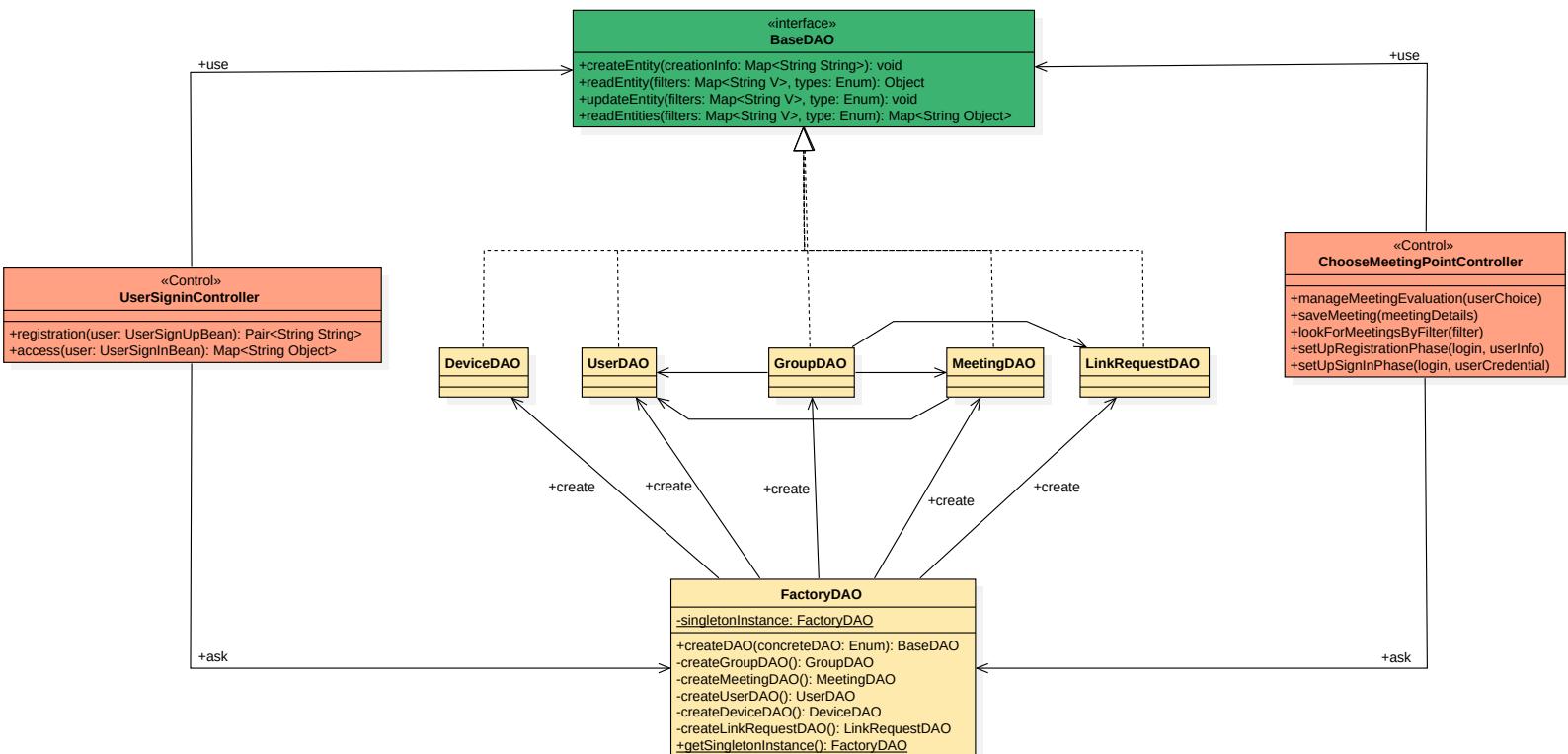
3. Design

3.3 Design Patterns



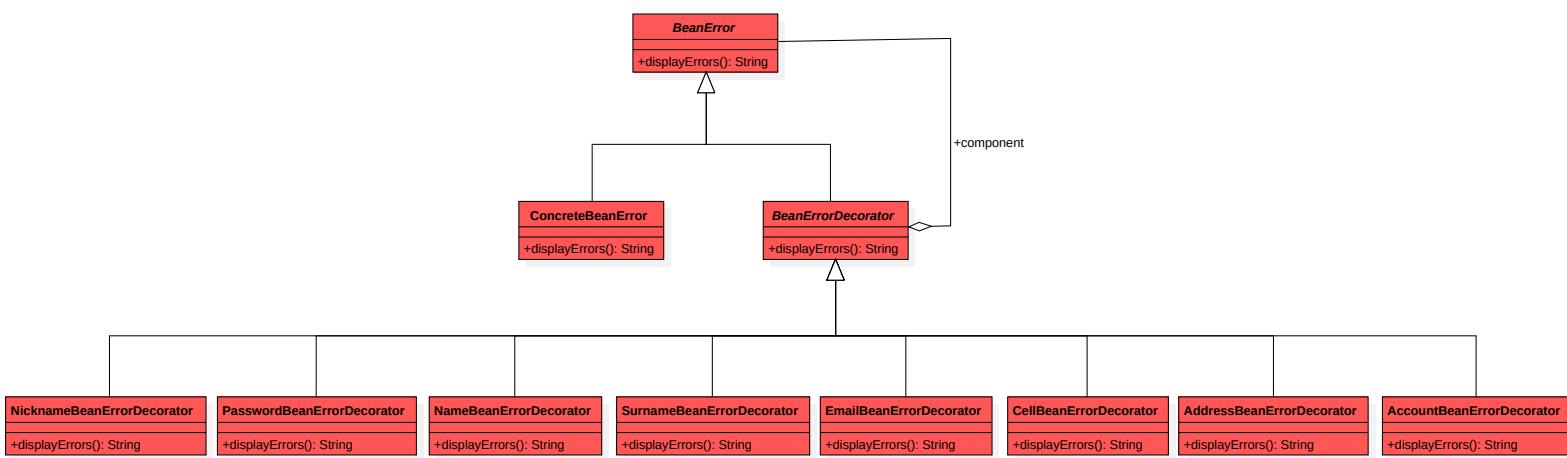
3. Design

3.3 Design Patterns



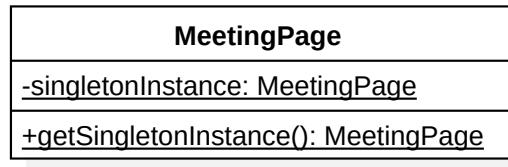
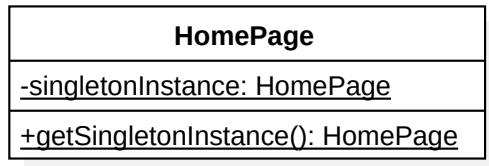
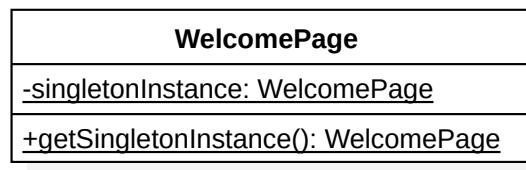
3. Design

3.3 Design Patterns



3. Design

3.3 Design Patterns

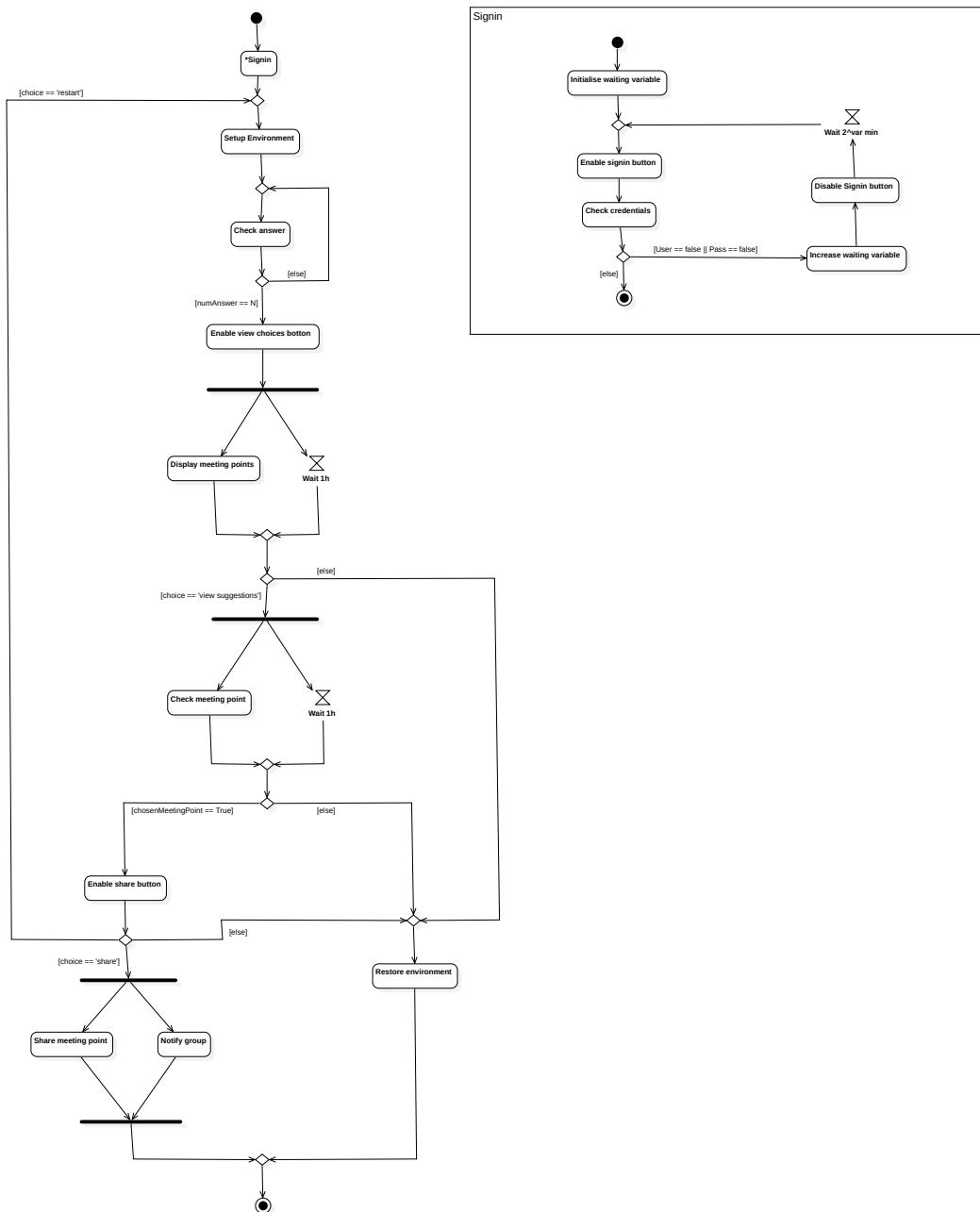


3. Design

3.4 Activity Diagram

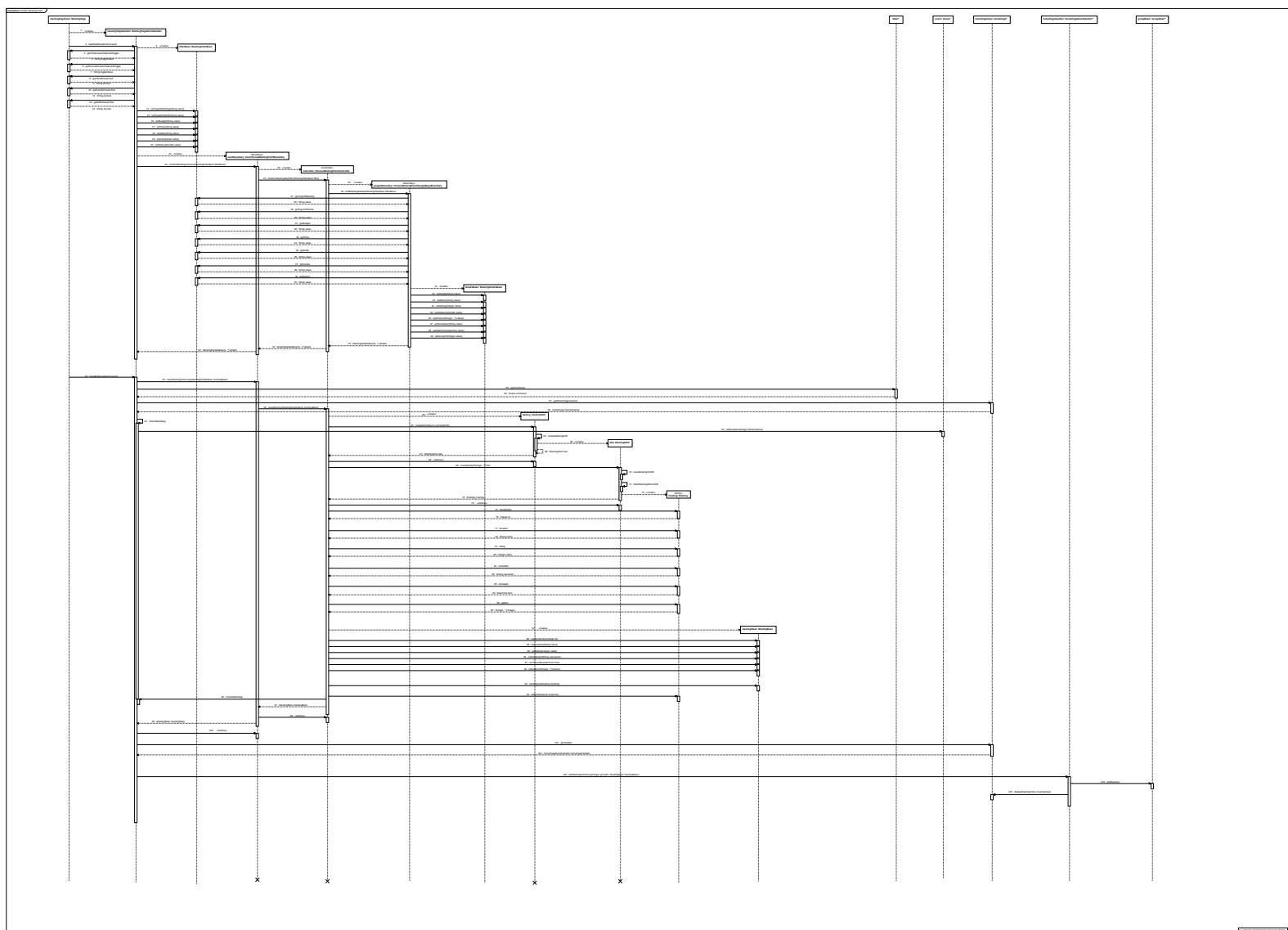
Signin := implemented without exponential waiting after wrong credentials.

use case::choose meeting point



3. Design

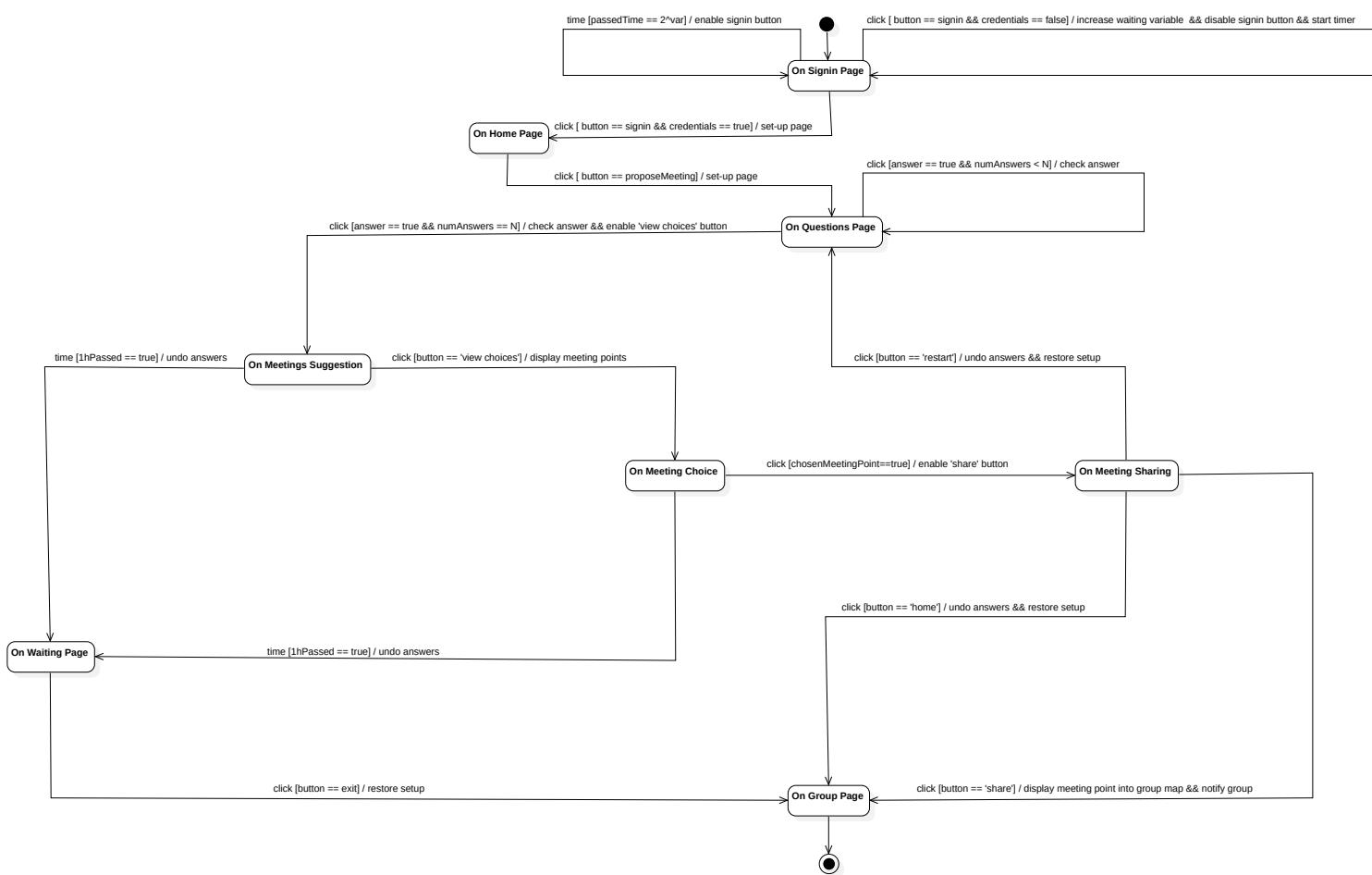
3.5 Sequence Diagram



3. Design

3.6 State Diagram

use case::choose meeting point



4. Code and Testing

GitHub: <https://github.com/claudiopezzino/linkingg>

A screenshot of a GitHub repository page. The repository name is 'linkingg'. The commit history shows the following entries:

- claudiopezzino #11 (416f9f1, 2 weeks ago) - History
- ..
- main (commit #10, 2 weeks ago)
- test/java (commit #11, 2 weeks ago)
- .DS_Store (commit #1, 4 months ago)

Selenium API: <https://github.com/claudiopezzino/LinkinggDeliverables>

Selenium IDE: <https://github.com/claudiopezzino/LinkinggDeliverables>

SonarCloud: https://sonarcloud.io/summary/new_code?id=claudiopezzino_linkingg

Analysis results for the 'linkingg' project:

- 10k Lines of Code** (Last analysis 13 days ago)
- Quality Gate**: **Passed**
- New Code** vs **Overall Code**
- New code:** Since 1.0-SNAPSHOT, started 16 days ago

Category	Score	Details
Reliability	A	0 Bugs
Maintainability	A	0 Code Smells
Security	A	0 Vulnerabilities
Security Review	A	0 Security Hotspots
Coverage	?	— Coverage on 0 New Lines to cover
Duplications	?	— Duplications on 0 New Lines

5. Analytics

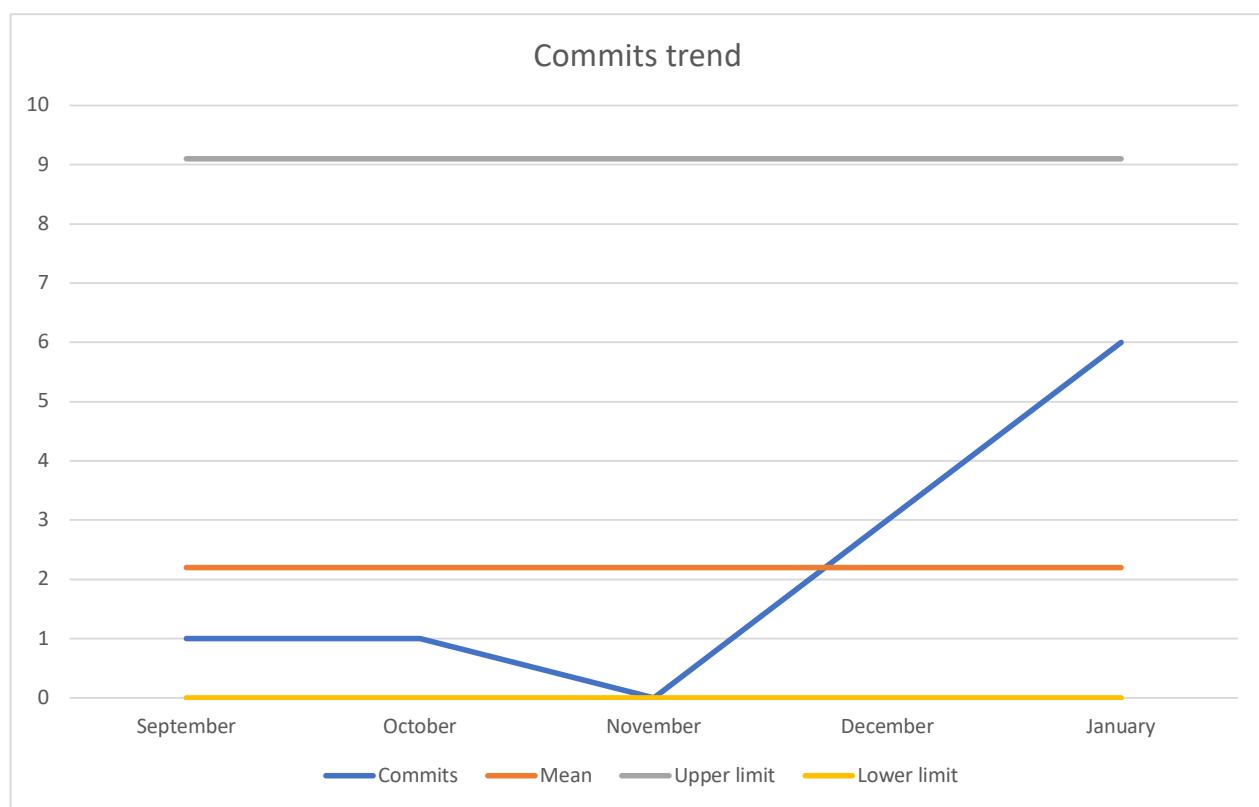
Process control chart

Following chart shows how the development of linkingg project has evolved in the period between September and January.

Horizontal line: it represents the flow of time, expressed in months.

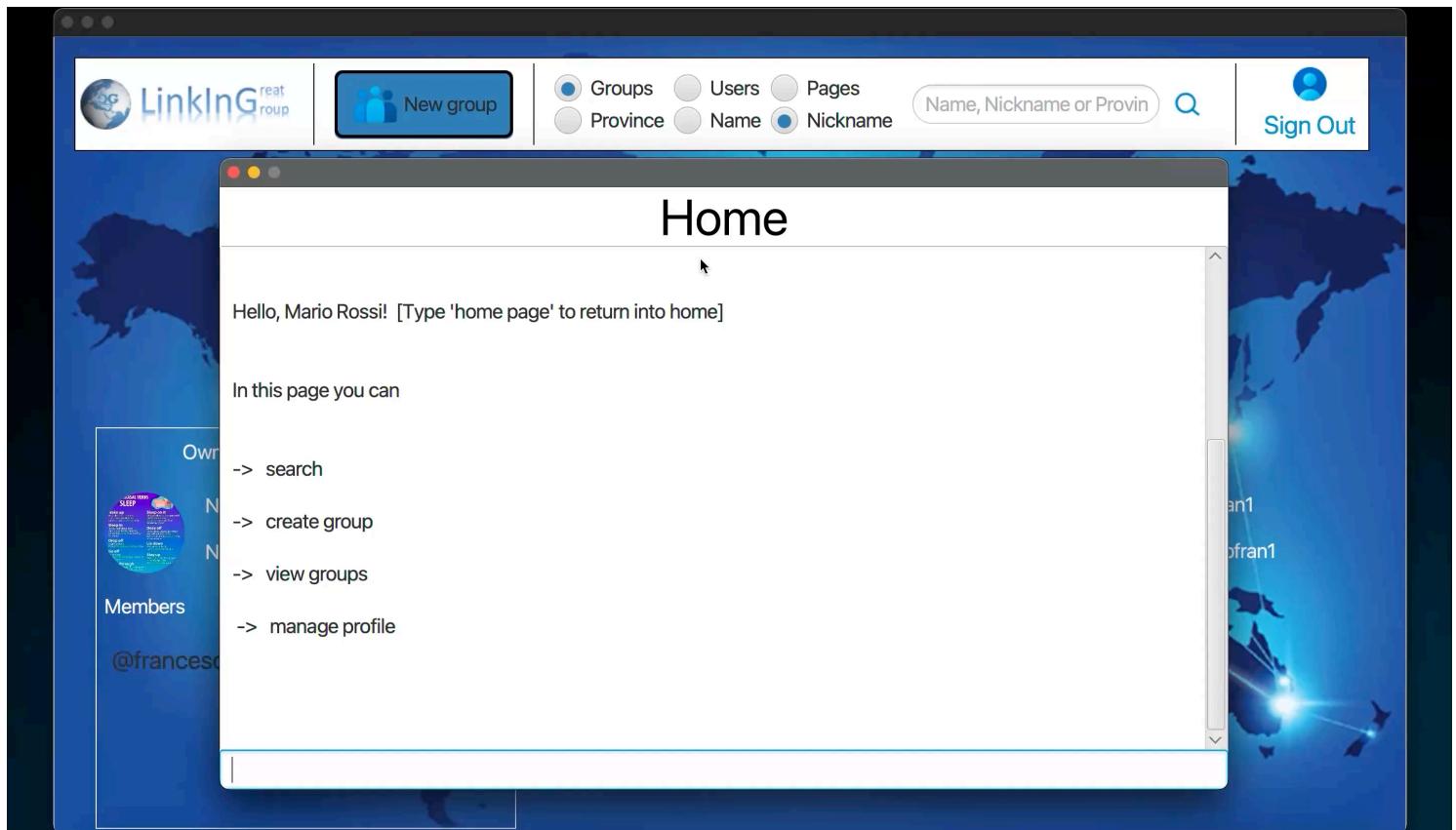
Vertical line: it represents the number of commits, that is the stability parameter to analyze.

It can be deducted that this project has had a trend of two commits per month.



6. Video

GitHub: <https://github.com/claudiopezzino/LinkinggDeliverables>



EXPLANATION

The scope of this demo is to show the interaction between two users, @mariorossi_5 and @francescoesposito_0, the first one sends a link request to a group owned by the second one, thanks to this interaction the user @mariorossi_5 is added into the target group because the user @francescoesposito_0 accepts the link request.

IMPLEMENTATION

Sign-up, sign-in, create group, search groups, send link request (to join a group), accept link request (to add user into group, only for the owner of target group).