ER

ER: Requirements Specification Component

A1: Infra

Infra's goal is to create a social network specifically for geeks/nerds which aims to unite groups of people based solely on their interests. When a new user signs up they will be asked about their interests regarding pop culture subjects, they will then be added to groups of people who share those same tastes.

This network is inspired by certain social platforms, such as Facebook, specifically in terms of group creation and interaction inside them. It will allow users to make posts either on their personal feed or in a group. Any post will have its own individual comments' section. A user may react to a post by commenting on it or with a like. Users will also be able to send friend requests to each other. Any comment and like on an user's post will send them a notification, as will any friend requests. The user will also be able to edit or delete their own posts or comments.

Each user will have to create an account in order to interact with any content on the application, otherwise they'll act as a guest, only being able to see public groups and profiles. In order to create such an account, the user will have to provide an e-mail which hasn't been used in any other accounts and a password. The authenticated user will also have the possibility to private or public their own profile, edit any information within it such as their profile picture, and see their own notifications.

The groups will have one or more moderators, the group creator and others appointed by them, which will then be able to delete posts they might find offensive or ban other users from that specific group. These moderators will also be able to invite other users. Network administrator will not only have the same privileges as any group moderator, while also having the possibility of banning a certain user from the entire network itself.

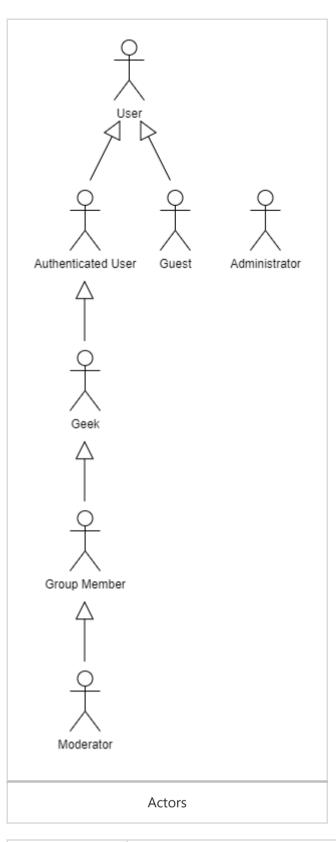
There will be a search bar, which will enable users to search for a specific post, group, user or comment, if they have access to the content they're searching for. The search feature will take into account multiple attributes.

A2: Actors and User Stories

Serving as agile documentation of the project requirements, the present artefact defines the actors and their user stories.

1. Actors

For the Infra network, the actors are shown in the figure below and described in the next table.



Identifier	Description
User	Generic user which has access to the front page.
Guest	Unauthenticated User that can log-in or register itself, while also viewing public content.
Authenticated User	User which has the ability to create content on the network and view public content.
Geek	An Authenticated User with the ability to enter or create groups and have a profile.
Group Members	Authenticated User which has the ability to create content on a group where belongs to
Moderator	A moderator is an authenticated user with the ability to manage a certain group, being able to add or remove any users, while also being able to delete it.
Administrator	An administrator has the abilities to manage the general content and users of the entire network.

2. User Stories

2.1. User

Identifier	Name	Priority	Description
US11	See Welcome Screen	high	As a <i>User</i> , I want to be able to access the welcoming page, so that I can see a brief showcase of the platform

Identifier	Name	Priority	Description
US12	Consult Contacts	high	As a <i>User</i> , I want to be able to contact the network, so that I can ask questions, make suggestions or log a complaint
US13	See About Us	high	As a <i>User</i> , I want to be able to access and About Us page, so that I can see the website details

2.2. Guest

Identifier	Name	Priority	Description
US21	Sign-in	high	As a <i>Guest</i> , I want to be able to sign-in, so that I can access privileged information.
US22	Sign-up	high	As a <i>Guest</i> , I want to be able to sign-up, so that I can sign-in to the network.
US23	Search for Public Groups	high	As a <i>Guest</i> , I want to be able to search for public groups, so that I can find those that might interest me.
US24	Search for Public Profiles	high	As a <i>Guest</i> , I want to be able to view public posts, so that I can find like-minded users or those to contact.
US25	View Public Groups	high	As a <i>Guest</i> , I want to be able to view public groups, so that I can see content that may interest me.
US26	View Public Profiles	high	As a <i>Guest</i> , I want to be able to view public profiles, so that I can find information on users, such as their contact information and picture.
US27	View Public Timeline	high	As a <i>Guest</i> , I want to be able to view a public timeline, so that I can see general content that may be interest me

2.3. Authenticated User

Identifier	Name	Priority	Description
US301	Publish Post	high	As an <i>Authenticated User</i> , I want to write and publish a post containing my thoughts, pictures or links and share with others
US302	Delete Post	high	As an <i>Authenticated User</i> , I want to delete a post I published in case it contains misleading information
US303	Edit Post	high	As an <i>Authenticated User</i> , I want to edit a post I published in case I made a mistake and want to correct it
US304	View User Profile	high	As an <i>Authenticated User</i> , I want to view another user's profile so I can see posts and details
US305	Consult Feed	high	As an <i>Authenticated User</i> , I want to consult my feed, so that I can see post within my interests
US306	Like Post	high	As an <i>Authenticated User</i> , I want to like a post, so that I can express my feelings
US307	Comment Post	high	As an <i>Authenticated User</i> , I want to comment a post, so that I can express my thoughts about the post
US308	Remove Like From Post	high	As an <i>Authenticated User</i> , I want to remove a like from a post, in case of my latest feelings about the post
US309	Remove Comment From Post	high	As an <i>Authenticated User</i> , I want to remove a comment from a post

Identifier	Name	Priority	Description
US310	Edit Comment	high	As an Authenticated User, I want to edit comment in case I made a mistake and want to correct it
US311	Like Comment	high	As an <i>Authenticated User</i> , I want to like a comment so that i can express my feelings about a comment
US312	Remove Like From Comment	high	As an <i>Authenticated User</i> , I want to remove a like from a comment so that I can express my last feelings about the comment
US313	Search for User	high	As an <i>Authenticated User</i> , I want to search for a user, so that I can see that user's profile
US314	Search for Group	high	As an <i>Authenticated User</i> , I want to search for a group, so that I can find a group related to my interests
US315	Search for Post	high	As an <i>Authenticated User</i> , I want to search for a post, so that I can find a post within my interests
US316	Search for Comment	high	As an <i>Authenticated User</i> , I want to search for a comment, so that I can find a comment I am looking for
US317	Log Out	high	As an <i>Authenticated User</i> , I want to be able to log out, so that I can get out of my profile in public computers
US318	Delete Account	high	As an <i>Authenticated User</i> , I want to Delete my account, in case I don't want to have an account anymore
US319	View Personal Notifications	high	As an <i>Authenticated User</i> , I want to view personal notifications, in case I receive a like or a comment
US320	Chat with other users	low	As an <i>Authenticated User</i> , I want to chat with another user, so that I can privately communicate with someone
US321	Share Post	low	As an <i>Authenticated User</i> , I want to share a post from another user to reach people watching my feed or in a group

2.4. Geek

Identifier	Name	Priority	Description
US401	Profile	high	As a <i>Geek</i> , I want to have a profile, so that I share it with others.
US402	Edit Profile	high	As an <i>Authenticated User</i> , I want to edit profile details, so that I can better describe who I am
US403	Create Group	high	As an <i>Authenticated User</i> , I want to create a group, so that I can connect people with the same interests
US404	Manage group invitation	high	As an <i>Authenticated User</i> , I want to manage group invitations, so that I can accept or reject a group invitations
US405	Send Friend Requests	high	As an <i>Authenticated User</i> , I want to send friend requests to a user, so that I can see their private posts or even communicate
US406	Manage Received Friend Requests	high	As an <i>Authenticated User</i> , I want to manage received friend request, so that I can accept or reject an friend request
US407	Remove Friends	high	As an <i>Authenticated User</i> , I want to remove friends, in case I don't want to be a friend anymore
US408	View Friends' Feed	medium	As an <i>Authenticated User</i> , I want to view friends' feed, so that I can view what my friends interests are
US409	Request to Join Public Group	medium	As an <i>Authenticated User</i> , I want to request to join public group, so that I can enter and watch posts

Identifier	Name	Priority	Description
US410	Tag Friends in Post	low	As an <i>Authenticated User</i> , I want to tag friends in post so that they can see the post

2.5. Group Member

Name	Identifier	Priority	Description
US51	Make a Post in Group	high	As a <i>Group Member</i> , I want to be able to post on the group, so I can communicate with other members
US52	View Group Members	high	As a <i>Group Member</i> , I want to be able to see other members of the group, so I can connect with them
US53	Leave Group	high	As a <i>Group Member</i> , I want to be able to leave the group, so I can stop interacting with it

2.6. Moderators

Name	Identifier	Priority	Description
US61	Invite/Remove User from Group	high	As a <i>Moderator</i> , I want to be able to invite or remove a user from the group I moderate, so I can control access to it
US62	Remove any Post from Group	high	As a <i>Moderator</i> , I want to be able to remove a post from a group, so I can moderate the content in it
US63	Remove any Comment on Post on Group	high	As a <i>Moderator</i> , I want to be able to remove a comment from a group, so I can moderate the content in it
US64	Delete Group	high	As a <i>Moderator</i> , I want to be able to delete the group I moderate, so I can end every interaction in the group
US65	Alter Group Information	high	As a <i>Moderator</i> , I want to be able to alter the group information, so I can better describe what the group is about
US66	Pin Post on Group	low	As a <i>Moderator</i> , I want to be able to pin a post on the group, so I can increase its visibility
US67	Pin Comment on Post	low	As a <i>Moderator</i> , I want to be able to pin a comment on a post, so I can increase its visibility

2.7. Administrator

Identifier	Name	Priority	Description
US71	See All Profiles	high	As an <i>Administrator</i> , I want to be able to access every public/private profile, so that I can evaluate any issue that may occur regarding them
US72	See All Groups	high	As an <i>Administrator</i> , I want to be able to access every public/private group, so that I can evaluate any issue that may occur regarding them
US73	Remove Post	high	As an <i>Administrator</i> , I want to be able to remove a post, so that I can maintain a feed that follows policy terms
US74	Remove Comment	high	As an <i>Administrator</i> , I want to be able to remove a comment, so that I can maintain a comment section that follows policy terms
US75	Remove Group	high	As an <i>Administrator</i> , I want to be able to remove a group, so that I can maintain a network that follows the right conduct
US76	Ban a User	medium	As an <i>Administrator</i> , I want to be able to ban a user, so that I can resolve severe violations of normal conduct on the platform

3. Supplementary Requirements

3.1. Business rules

A business rule defines or constrains one aspect of the business, with the intention of asserting business structure or influencing business behaviour. Business rules often supplement usage or user interface requirements.

Identifier	Name	Description
BR01	Post Date	The date shown on a post can't be higher than the real-time date.
BR02	Post Deletion	Deleting a post eliminates every post like, post comments, and comments likes
BR03	Comment Deletion	Deleting a comment removes every descending reply as well as the comment in question
BR04	Account Removal	Erasing an account deletes their profile and changes any content the user has created, placing it under an anonymous author.
BR05	Post Liking	Users can <i>like</i> their respective posts
BR06	Post Commenting	Users can <i>comment</i> their respective posts
BR07	Comment Liking	Users can <i>like</i> their respective comments
BR08	Comment Commenting	Users can <i>comment</i> their respective comments
BR09	Group User Removal	Users removed from a group cease to be able of accessing any posts that belong to the group in question
BR10	Group User Addition	Users added to a group are able to see posts that were published before their entry
BR11	User Banning	Banned users aren't allowed to return to the network using the same e-mail address
BR12	Account Duplication	Two accounts with the same e-mail address are not allowed, so everyone should only have one account in the network
BR13	Age Policy	Every user of the network must be at least 13 years old.

3.2. Technical requirements

Requirements related to technical aspects of the system, such as performance, reliability and availability.

Identifier	Name	Description
TR01	Performance	The system should be have response times shorter than 2 seconds
TR02	Robustness	The system should be prepared to handle and continue operating when runtime errors occur
TR03	Scalability	The system should be prepared to deal with growth in the number of users
TR04	Accessibility	The system must ensure that everyone can access the pages
TR05	Availability	The system should always be available
TR06	Usability	The system should be simple and intuitive to use
TR07	Security	The system should protect information from unauthorised access

For our Social Network, we concluded that the three most critical technical requirements are Scalability, Usability and Security.

Upon the success of the network, there should be an exponential growth in new users and thus it is of critical importance that Infra is able to handle it.

Since the network will be available for a wide-range of audiences, especially in regards for age groups, it is imperative that the design is incredibly intuitive and easy to use.

Lastly, with the possibility of groups that will restrict content from outside the platform and even others in it, it is incredibly important that the network is not only secure from prying users, but also from those outside of the network itself.

3.3. Restrictions

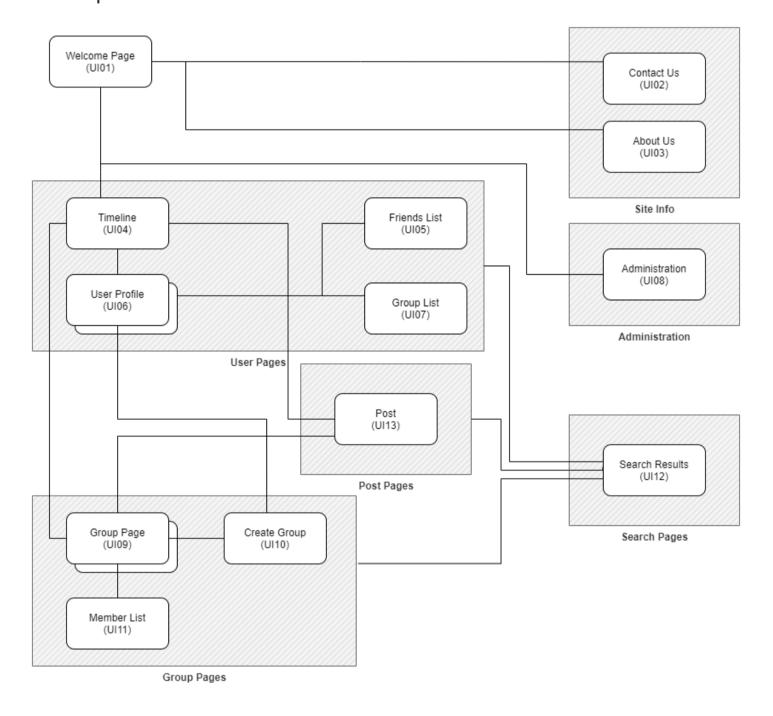
A restriction on the design limits the degree of freedom in the search for a solution.

Identifier	Name	Description
R01	Deadline	The system should be ready to be used at presentation time
R02	Technology	The system should use Laravel and PostgreSQL

A3: Information Architecture

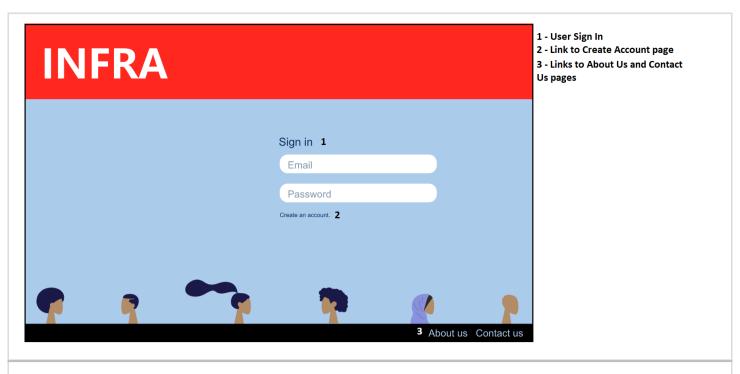
This artefact contains the information architecture of the network from the viewpoint of an user, sitemap, and a set of wireframes, describing the layout and content of key pages.

1. Sitemap

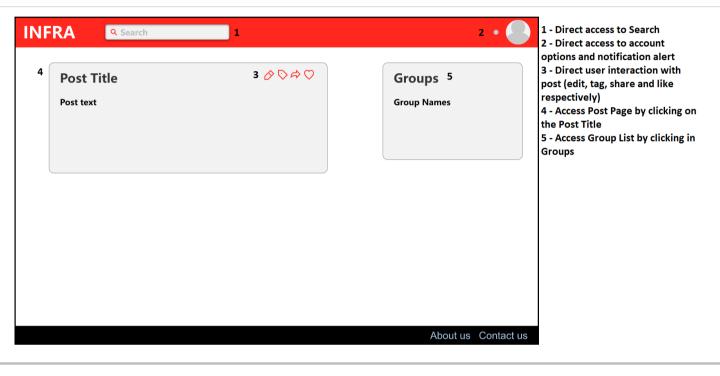


2. Wireframes

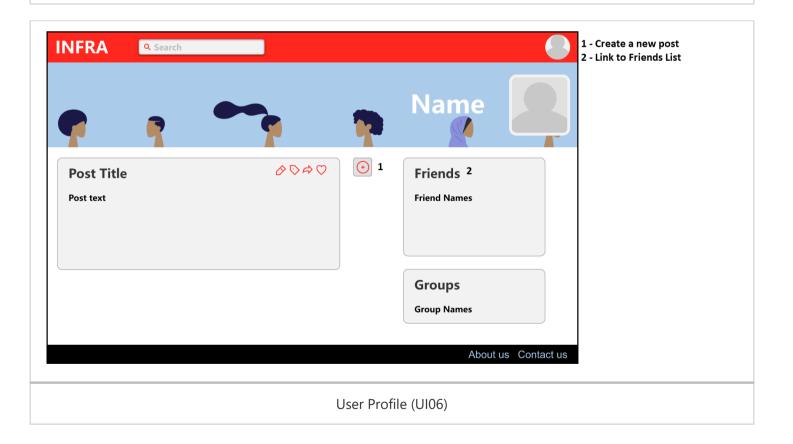
The following wireframes define the Welcome Page(UI01), the Timeline (UI09), the User Profile (UI06) and the Group Page (UI09).

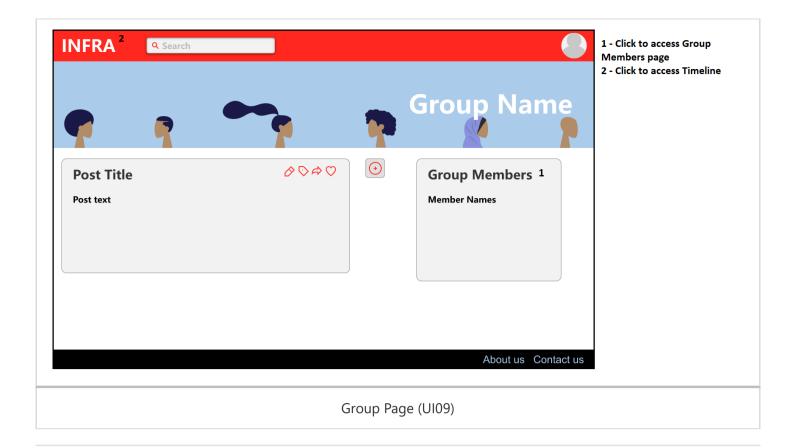


Welcome Page (UI01)



Timeline (UI04)





Revision history

GROUP2192, 10/11/2021

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