

ER: Requirements Specification Component

Collaborative News is a web platform for news sharing where you can also interact with other users.

A1: Collaborative News

The main focus of the project "Collaborative News" is to develop a website and information system that is able to manage the sharing of news from different users, as well as their profiles. This tool is set to be used by those who want to share fresh news and people who seek to be up to date.

We increasingly live in a world where people want to keep up with reality. The purpose of this project is to gather news in just one big useful community so that our users don't have to search in multiple other websites for the accurate information they look for.

Users may create an account and sign-in, becoming members. Members can create, edit and delete their news and comments and vote on other authenticated users' posts, as well as visit others' profiles and edit their own. Each news article has a topic. When creating a news, members can choose from already approved topics or suggest new ones. On the other hand, the administrators can control every post and approve the topics. Admins can also permanently ban users. Members that create news or comments are considered writers. Users that don't sign-in are considered visitors and can still view news and comments.

User's reputation is presented in their profiles, and it depends on the votes received on their posts or comments. News and comments reputation also work in the same way. The presented news can be sorted according to their votes and/or how recently they were posted, and can be filtered according to their topic or specific search.

Users can follow each other and establish friendships among them through user profiles. They will also receive notifications regarding their and their friends' news and comments. A post or comment cannot be deleted by its author if it already has votes or comments.

A2: Actors and User stories

This artifact contains the documentation about the actors and their respective user stories. It also includes the supplementary requirements: business rules, technical requirements and restrictions to the system.

1. Actors

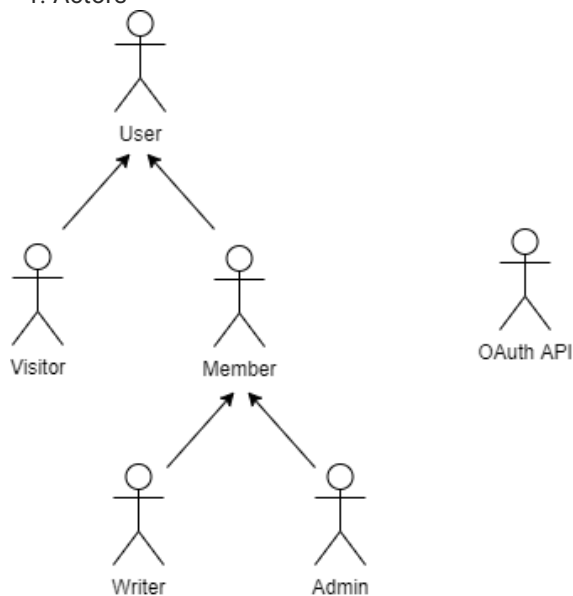


Figure 1: Collaborative News actors.

Identifier	Description
User	Generic user that has access to public information, such as news articles and member's profiles
Visitor	Unauthenticated user that can register itself (sign-up) or login (sign-in) in the system
Member	Authenticated user that can access public information and interact with it (post, comment, vote, make friendships with others)
Writer	Author of news item or comment that can edit and delete them
Admin	Authenticated user that is responsible for the management of content, user's accounts, topic proposals and user reports
OAuth API	External OAuth API that can be used to register or authenticate into the system (Google)

Table 1: Collaborative News actors description.

2. User Stories

2.1 Visitor

Identifier	Name	Priority	Description
US01	Sign-up	High	As a Visitor, I want to sign-up so I can become a Member
US02	Sign-in	High	As a Visitor, I want to sign-in to access my Member features
US03	Recover password	Low	As a Visitor, I want to recover my password, so that I can access my account again
US04	OAuth API Sign-up	Low	As a Visitor, I want to register a new account linked to my Google account, so that I do not need to create a whole new account to use the platform
US05	OAuth API Sign-in	Low	As a Visitor, I want to sign-in through my Google account, so that I can authenticate myself into the system

Table 2: Visitor user stories.

2.2 User

Identifier	Name	Priority	Description
US06	View news item	High	As a User, I want to view specific news item, so that I can access more information
US07	View news item comments	High	As a User, I want to view news item comments, so that I can view what people are saying about that topic
US08	Search by topic	High	As a User, I want to search using multiple attributes, so that I can select the topic of news I want to see
US09	Search for news items and comments	High	As a User, I want to search for specific posts, so that I can access what I'm looking for
US10	See About	High	As a User, I want to see the about page, so that I can get to know who developed the site
US11	See Help	High	As a User, I want to see the help page, so that I can be able to report bugs or ask questions
US12	Exact match search	Low	As a User, I want to search for specific posts, so that I can access what I'm looking for faster
US13	Search using filters	Low	As a User, I want to search using filters, so that I can filter the news I'm looking for

Table 3: User user stories.

2.3 Member

Identifier	Name	Priority	Description
US14	Edit profile	High	As a Member, I want to edit my profile, so that I can present myself to other Members
US15	View own profile	High	As a Member, I want to view my own profile, so that I can get to know how it looks like and see my reputation
US16	View others users' profiles	High	As a Member, I want to view others Member's profiles, so that I can see their information and reputation
US17	Logout	High	As a Member, I want to logout, so that other users can authenticate
US18	Delete account	High	As a Member, I want to delete my account, so that I'm no longer related to the news and comments I posted as I'm no longer interested in being part of this system
US19	Create news item	High	As a Member, I want to create a news item, so that I can share it with other people
US20	Comment on news item	High	As a Member, I want to comment on any news items, so that I can share my opinion about that item
US21	Vote on news item	High	As a Member, I want to upvote or downvote news, so that I can show what news I like to see and give feedback to Writers
US22	Vote on comment	High	As a Member, I want to upvote or downvote comments, so that I can show my opinion on a comment
US23	Propose new topic	Medium	As a Member, I want to propose a new topic, so that news can be better organized in categories
US24	Follow topics	Medium	As a Member, I want to follow a topic, so that I can see its news items on my feed
US25	Unfollow topics	Medium	As a Member, I want to unfollow a topic, so that I no longer have to see its news items on my feed
US26	Establish friendship	Medium	As a Member, I want to become friends with other Members, so that I can see their posts on my feed
US27	Remove friendship	Medium	As a Member, I want to remove friendship with other Members, so that I no longer have to see their posts on my feed

Table 4: Member user stories.

2.4 Writer

Identifier	Name	Priority	Description
US28	Edit news item	High	As a Writer, I want to edit my own news item, so that I keep them updated
US29	Delete news item	High	As a Writer, I want to delete my own news items, so that I'm not sharing wrong information
US30	Edit comment	High	As a Writer, I want to edit my own comment, so that I keep it updated
US31	Delete comment	High	As a Writer, I want to delete my own comment, so that I'm not sharing wrong information
US32	See notifications	Low	As a Writer, I want to see my notifications, so that I'm always aware of the votes and comments on my posts, knowing my reputation depends on them

Table 5: Writer user stories.

2.5 Admin

Identifier	Name	Priority	Description
US33	Delete user accounts	High	As an Admin, I want to remove a user from the system, so that he can no longer access restricted content
US34	Manage content	High	As an Admin, I want to edit or delete news items and comments, so that the system doesn't have inappropriate or wrong content
US35	Block user accounts	Medium	As an Admin, I want to block a user with low reputation, so that he can no longer access restricted content for a specific period of time
US36	Unblock user accounts	Medium	As an Admin, I want to unblock a user, so that he can now access restricted content again
US37	Manage topic proposals	Medium	As an Admin, I want to approve or decline a new topic proposal, so that it will be added or not to the list of topics

Table 6: Admin user stories.

3. Supplementary Requirements

3.1. Business rules

Identifier	Name	Description
BR01	Account deletion	When user account is deleted, shared user data (news items, comments and votes) is kept but is made anonymous
BR02	User reputation	User reputation depends on the upvotes and downvotes received on his posts or comments
BR03	Data consistency	A post or comment cannot be deleted by its author if it has votes or comments
BR04	Date	The date of a comment or a vote on a post must be greater than the item it refers to
BR05	Interaction with own item	A user can't vote on his own posts or comments but he can comment his own news items

Table 7: Collaborative News business rules.

3.2. Technical requirements

Identifier	Name	Description
TR01	Availability	The system must be available 99 percent of the time in each 24-hour period. The main focus of the system is to keep people up to date, so the system has to be available all the time as every second counts on the world of news sharing.
TR02	Accessibility	The system must ensure that everyone can access the pages, regardless of whether they have any handicap or not, or the web browser they use
TR03	Usability	The system should be simple and easy to use. Considering news are an interest of the general population, people with no more than basic knowledge of using the internet should be able to take advantage of all the system's features.
TR04	Performance	The system should have response times shorter than 2 s to ensure the user's attention
TR05	Web application	The system should be implemented as a Web application with dynamic pages (HTML5, JavaScript, CSS3 and PHP)
TR06	Portability	The server-side system should work across multiple platforms (Linux, Mac OS, etc.). As people want to access the system no matter where they are, it is important that the website works not only on PC but also on their mobile phones and tablets.
TR07	Database	The PostgreSQL database management system must be used, with a version of 11 or higher
TR08	Security	The system shall protect information from unauthorised access through the use of an authentication and verification system
TR09	Robustness	The system must be prepared to handle and continue operating when runtime errors occur
TR10	Scalability	The system must be prepared to deal with the growth in the number of users and their actions
TR11	Ethics	The system must respect the ethical principles in software development (for example, personal user details, or usage data, should not be collected nor shared without full acknowledgement and authorization from its owner)

Table 8: Collaborative News technical requirements.

3.3. Restrictions

Identifier	Name	Description
C01	Deadline	The system should be ready to be used by the end of January

Table 9: Collaborative News project restrictions.

A3: Information Architecture

This artefact enables a brief exploration of the information architecture of the system to be developed, in particular the identification of the content, how it is organized and made available, and how it is presented. It includes a sitemap, presenting the overall structure of the web application, and a set of wireframes, defining how space is allocated and how content is prioritized.

1. Sitemap

The Collaborative News system is organized in five main areas, the static pages that provide general information about the system (Static Pages), the pages used to search (search by topic, string or apply filters), access (view details) and create the news (News Library), the members' profile pages, used to view and edit information about each member of the platform (User Pages), the authentication pages for signing-in and signing-up (Authentication Pages), and the pages with administration features (Admin Pages).

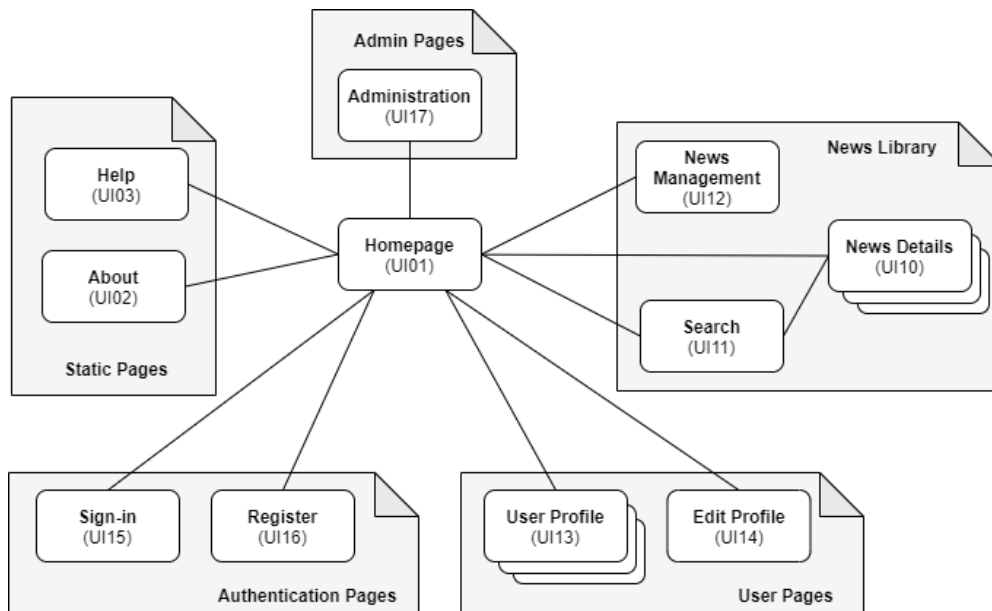


Figure 2: Collaborative News sitemap.

2. Wireframes

Below are the wireframes for the homepage (UI01), the news details page (UI10) and the user profile page (UI13), presented in Figures 3, 4 and 5, respectively.

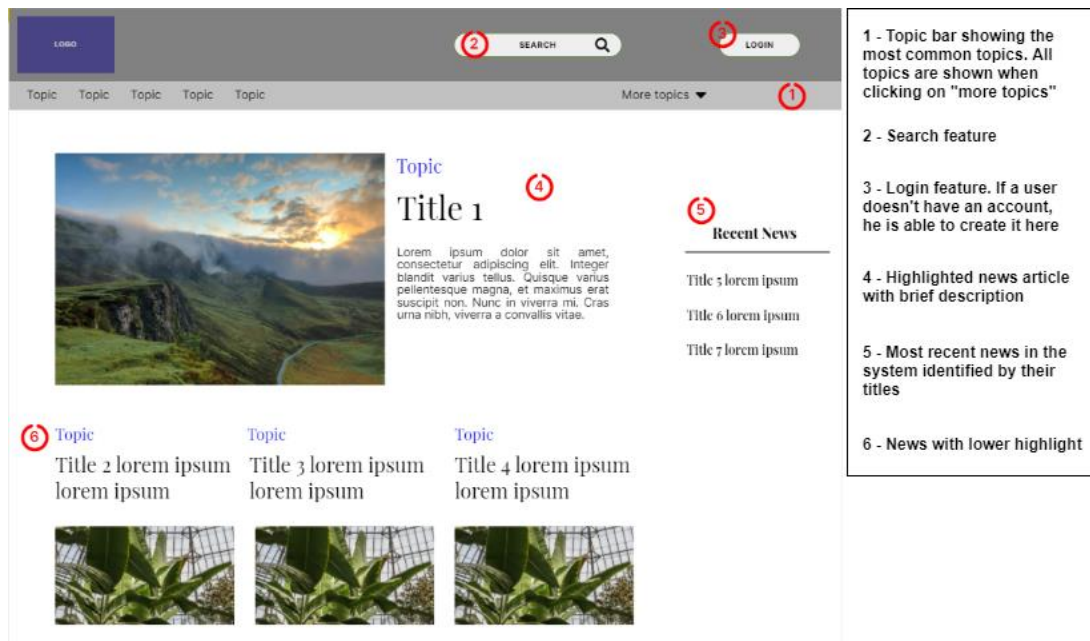


Figure 3: Homepage (UI01) wireframe.

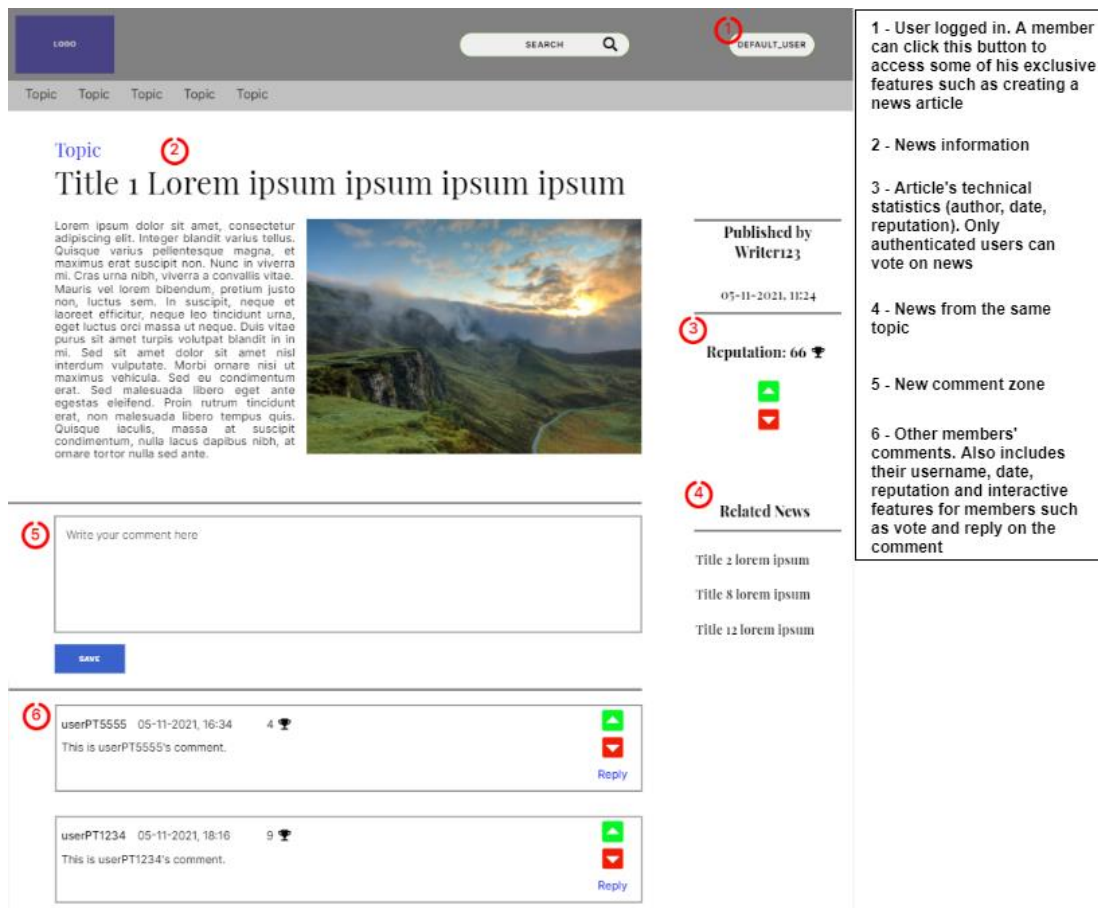


Figure 4: News Details (UI10) wireframe.

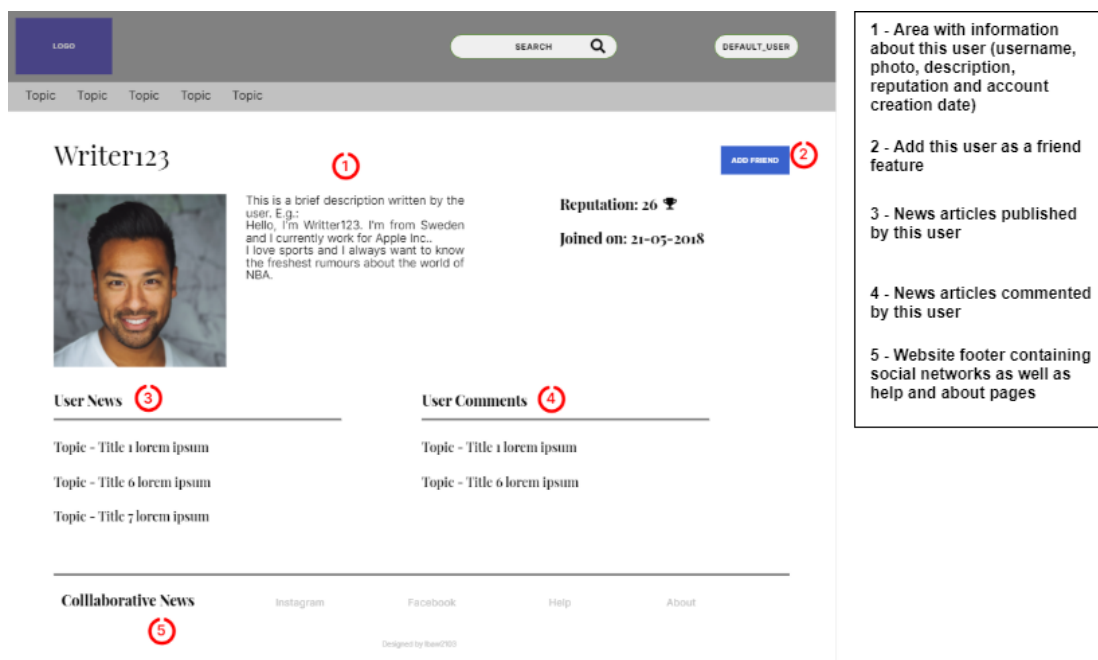


Figure 5: User Profile (UI13) wireframe.

Revision history

Nothing changed so far.

GROUP2103, 07/11/2021

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