

er

Last edited by João Francisco Costa Cordeiro 6 months ago

ER: Requirements Specification Component

The Bulletin is a community-driven news platform that empowers users to submit, vote on, and discuss news stories. It offers personalized feeds based on user interests, enabling people to engage with relevant content while shaping its visibility through voting. With a reputation system that rewards quality contributions and moderation tools to maintain platform integrity, The Bulletin fosters a respectful and collaborative environment. Accessible on all devices, it aims to create a democratic space where users actively participate in curating and discussing the news.

A1: The Bulletin

Context and Motivation:

The Bulletin is a web-based platform designed to enhance how users interact with and manage news. In an era where people want more control over the news they consume and share, this system allows readers and contributors to submit, vote on, and discuss news. The motivation behind The Bulletin is to foster a collaborative environment where users can shape the news narrative, creating a democratic platform driven by community engagement.

Goals & Objectives:

The main goal of The Bulletin is to create a space where users can actively participate in news creation and discussion. It aims to allow users to filter news based on friendships and interests, vote on content to influence its visibility, and maintain a vibrant and respectful community through reputation systems and reporting mechanisms. System managers will ensure content moderation and platform integrity.

Features:

The platform enables users to submit news, vote on news items and comments, and engage with others through discussions. It offers personalized news feeds, the ability to follow specific tags or users and an advanced search functionality (allowing search through filters or tags and having different types of match search). The system includes voting mechanisms that affect user reputation and provides reporting tools for inappropriate content. Designed for all devices, it ensures a smooth user experience across desktop and mobile platforms.

Access Groups:

There are three main user groups: readers (authenticated users), visitors (unauthenticated users) and system managers and each group has clear access to features, ensuring the platform functions smoothly for all types of users. While visitors can browse news but have limited interaction, readers can see news details like the author, vote, comment, and follow other users and tags. In order for visitors to become readers, they must authenticate by either login in to their account or signing up (create an account). Any reader can become an author by contributing to the website with a news item of its own. System managers handle moderation and content reports, and have the ability to promote any reader to another system manager.

A2: Actors and User stories

This document outlines the roles involved in the project and their corresponding user stories, acting as agile documentation for the project’s requirements.

1. Actors

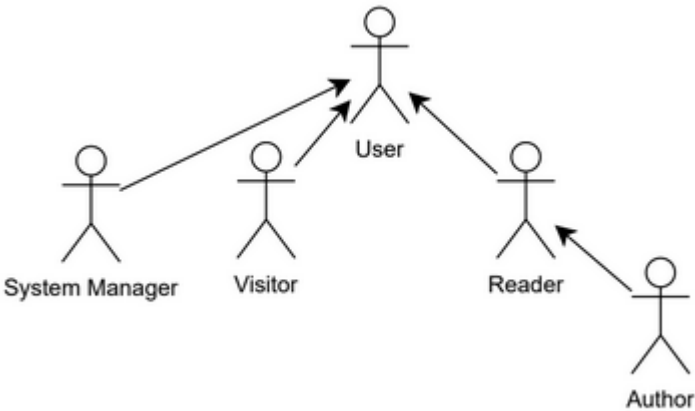


Figure 1: The Bulletin Actors

Identifier	Description
User	A general term for individuals who access the platform to browse public news content. Users may be either authenticated or unauthenticated. Unauthenticated users can only view content but have no interaction capabilities.
Visitor	An unauthenticated user who can browse public news but cannot interact with content. Visitors have the option to register or sign in to unlock interaction features like commenting and voting.
Reader	An authenticated user who can fully interact with the platform by voting on, commenting on, and following news articles and other users. Readers primarily consume content but can engage with it through various interactions. They can potentially become authors by submitting news articles.
Author	A Reader who has published at least one news article. Authors can create, edit, and manage their own content in addition to all regular Reader functionalities (voting, commenting, following users). The distinction of Author only comes into play once a Reader contributes content to the platform.
System Manager	An authenticated user with extended privileges, responsible for overseeing user management, content moderation, and handling reports or appeals. System Managers have all the capabilities of regular users (Reader/Author) but also ensure the platform functions correctly through supervisory tasks.

Table 1: The Bulletin actors description

2. User Stories

The user stories for The Bulletin system are organized by actor as follow

2.1. Visitor

Identifier	Name	Priority	Responsible	Description
US01	Register	High	João Cordeiro	As a visitor, I want to register, so that I can authenticate myself into the system.
US02	Login	High	João Cordeiro	As a visitor, I want to be able to login, so that I can enter my account and have access privileged information.

Table 2: Visitor User Stories

2.2. User

Identifier	Name	Priority	Responsible	Description
US03	Top News Feed	High	Luana Lima	As a user, I want to see the top news feed, so that I can remain up to date with popular topics.
US04	See News Item	High	Luana Lima	As a user, I want to see a news item, so that I can read the entire article.
US05	Exact Match Search	High	João Cordeiro	As a user, I want to search for news articles using an exact phrase, so that I can quickly find content that matches my specific query without unrelated results.
US06	Full-Text Search	High	João Cordeiro	As a user, I want to perform a full-text search across all articles, so that I can find content that contains the keywords or phrases I'm looking for within the body of the text.
US07	View News Items Comments	Medium	Miguel Neri	As a user, I want to view news item comments, so that I can see what other people think about that news article.
US08	Recent News Feed	Medium	Miguel Neri	As a user, I want to see the recent news feed, so that I can browse through the most recent topics.
US09	Search News Items/Comments	Medium	Miguel Neri	As a user, I want to be able to search for news items and comments, so that I can easily find what I’m looking for.
US10	Search over Multiple Atributes	Medium	Miguel Neri	As a user, I want to search for news articles using multiple attributes such as title, author, tags, and content, so that I can refine my search and find relevant results based on different criteria.
US11	Search Filters	Medium	Miguel Neri	As a user, I want to apply filters like date, popularity and tags to my search results, so that I can narrow down the results and find the most relevant articles quickly.

Identifier	Name	Priority	Responsible	Description
US12	Placeholders in Form Input Fields	Medium	Miguel Neri	As a user, I want to see helpful placeholders in form input fields, so that I can understand what information is expected and fill out forms correctly.
US13	Contextual Error Messages	Medium	Miguel Neri	As a user, I want to see clear and specific error messages related to the form field I am interacting with, so that I can easily correct mistakes without confusion.
US14	Contextual Help	Medium	Miguel Neri	As a user, I want to access quick contextual help (such as tooltips or pop-ups) near form inputs or features, so that I can get immediate assistance without leaving the page.
US15	About Us	Medium	Miguel Neri	As a user, I want to access an “About Us” section, so that I can learn more about the platform's mission, values, and the team behind it, helping me trust the platform.
US16	Main Features	Medium	João Cordeiro	As a user, I want to see a clear list or description of the platform’s main features, so that I can quickly understand the key functionalities and decide how to use the platform effectively.
US17	Contacts	Medium	João Cordeiro	As a user, I want to easily find contact information or a contact form, so that I can reach out to the support team or the platform administrators if I need help or have feedback.
US18	Ordering of Results	Low	Luana Lima	As a user, I want to sort my search results by different criteria such as date, relevance, and popularity, so that I can view the results in the order that is most useful to me.

Table 3: User User Stories

2.3. Reader

Identifier	Name	Priority	Responsible	Description
US19	Logout	High	Luana Lima	As a reader, I want to logout, so that i can leave my account.
US20	Profile Page	High	Miguel Neri	As a reader, I want to have a profile page, so that my information can be displayed.
US21	Edit Profile	High	Miguel Neri	As a reader, I want to be able to edit my profile, so that I can update my profile.
US22	See Other Profiles	High	Miguel Neri	As a reader, I want to see other users profile, so that I can know more about them.
US23	News Item Details	High	Rafael Campeão	As a reader, I want to see a news item details, so that I can see its author, the publication date and the votes.
US24	Other Users News Feeds	High	Miguel Neri	As a reader, I want to view other users news feeds, so I can check what they have been writing about.
US25	Delete My Account	Medium	João Cordeiro	As a reader, I want to be able to delete my account, so that the system doesn’t keep my information.
US26	Password Recovery	Medium	João Cordeiro	As a reader, I want to have a password recuperation system, so that I don’t lose my account if I lose my password.
US27	Profile Picture	Medium	João Cordeiro	As a reader, I want to have a profile picture, so that other users can easily recognize me and I can personalize my account, making my interactions on the platform more engaging.
US28	Personalised Notifications	Medium	Rafael Campeão	As a reader, I want to have personal notifications, so that keep up to date with my interests.
US29	Upvote News Items and Comments	Medium	Luana Lima	As a reader, I want to upvote a news item or a comment, so that I can give reputation to the author.
US30	Downvote News Items and Comments	Medium	Luana Lima	As a reader, I want to downvote a news item or a comment, so that I can take reputation from the author.

Identifier	Name	Priority	Responsible	Description
US31	Change Vote on News Item/Comment	Medium	Luana Lima	As a reader, I want to be able to change my vote on a news item or on a comment, so that it correctly represents my opinion in case it changed.
US32	Remove Vote on News Item/Comment	Medium	Luana Lima	As a reader, I want to be able to remove my vote on a news item or on a comment, so that it doesn't represents my opinion if I voted on it by mistake.
US33	Comment on News Item	Medium	Rafael Campeão	As a reader, I want to comment on news items, so that I can express my thoughts about the news item in a detailed way.
US34	See Users Reputation	Medium	Luana Lima	As a reader, I want to see other users reputation, so that i can verify how trustworthy they are.
US35	See Post Tags	Medium	Luana Lima	As a reader, I want to see the tags of a post, so that I can see if it is within my interests.
US36	Follow Users	Medium	Rafael Campeão	As a reader, I want to follow users, so that I can keep up to date with them.
US37	Unfollow Users	Medium	Rafael Campeão	As a reader, I want to unfollow, so that they don’t appear in my feed as much.
US38	Follow Tags	Medium	Rafael Campeão	As a reader, I want to follow tags, so that I can keep up to date with my interests.
US39	Unfollow Tags	Medium	Rafael Campeão	As a reader, I want to unfollow tags, so that they stop appearing on my feed when I lose interest.
US40	Edit Own Comments	Medium	Rafael Campeão	As a reader, I want to edit my own comments, so that I can correct errors and add/remove something to my comment.
US41	Delete Own Comments	Medium	Rafael Campeão	As a reader, I want to delete my own comments, so that I’m not linked to comments that I no longer identify with or that I regret posting.
US42	Notification on Voted Comments	Medium	Rafael Campeão	As a reader, I want to receive notifications when someone votes on my comments, so that I can stay informed about how my contributions are being received.
US43	Notification on Commented Comments	Medium	Rafael Campeão	As a reader, I want to receive notifications when someone comments on my comments, so that I can engage with the community as fast as possible and bring life to the topic I'm interested in.
US44	See Comment Details	Medium	Miguel Neri	As a reader, I want to be able to see comment details, so that I know, not only who commented it, but also when was the comment written and how much approval/disapproval did it get.
US45	Appeal for Unblock	Low	Rafael Campeão	As a reader, I want to be able to appeal for unblock, so that my account can be unlocked if it has been unfairly blocked.
US46	Propose News Topics	Low	Rafael Campeão	As a reader, I want to be able to propose new news topics, so that I can better tailor the website to my liking and make it better and more complete with topics I find interesting and are missing.
US47	Add to Favorites	Low	Miguel Neri	As a reader, I want to be able to add news items to my favorites, so that I can revisit them easily.
US48	Remove from Favorites	Low	Miguel Neri	As a reader, I want to be able to remove news items from my favorites, so that they don’t appear anymore after I lost my interest in them.
US49	Report News Items and Comments	Low	Luana Lima	As a reader, I want to be able to report news items and comments, so that they get deleted in case they are offensive or inappropriate and the user who posted them is properly punished.
US50	Report User	Low	Luana Lima	As a reader, I want to be able to report other users, so that users I find toxic to the website might get banned from it.

Table 4: Reader User Stories

2.4. Author

Identifier	Name	Priority	Responsible	Description
US51	Create News Item	High	Rafael Campeão	As an author, I want to create a news item, so that I can share my news.
US52	Edit my news	High	Rafael Campeão	As an author, I want to edit the news I post, so that I can correct errors and keep the news up to date.
US53	Delete my news	High	Rafael Campeão	As an author, I want to be able to delete the news I post, so that in case I notice on time that I made a mistake.
US54	Add tags to my news	Medium	Luana Lima	As an author, I want to add tags to my news, so that they go to the correct categories.
US55	Likes on Posts Notifications	Medium	Luana Lima	As an author, I want to receive notifications when someone likes my post, so that I can stay informed about how my contributions are being received.
US56	Comments on Posts Notifications	Medium	Luana Lima	As an author, I want to receive notifications when someone comments on my posts, so that I can engage with the community as fast as possible and bring life to the topic I'm interested in.

Table 5: Author User Stories

2.5. System Manager

Identifier	Name	Priority	Responsible	Description
US57	Administer Accounts	High	Luana Lima	As a System Manager, I want to administer user accounts, so that I can create, view and edit them.
US58	Delete Accounts	Medium	João Cordeiro	As an System Manager, I want to be able to delete user accounts, so that I can ban accounts from the site.
US59	Block Users	Medium	João Cordeiro	As an System Manager, I want to block users, so that I can stop them from posting.
US60	Unblock Users	Medium	João Cordeiro	As a System Manager, I want to unblock users, so that they can post again.
US61	Administrator Account	Medium	João Cordeiro	As a System Manager, I want to have an administrator account, so that I can have access to extra features beyond those available to users.
US62	Manage Topic Proposals	Medium	João Cordeiro	As a System Manager, I want to manage topic proposals, so that I can ensure only appropriate and relevant topics are approved for the platform.
US63	Manage Reports	Low	João Cordeiro	As a System Manager, I want to manage content/user reports, so that I can investigate and take action on reports so the platform remains a safe and productive environment.
US64	Delete News	Low	João Cordeiro	As a System Manager, I want to delete a news item, so that I can moderate the site.
US65	Promote user to System Manager	Low	Luana Lima	As a System Manager, I want promote a user to system manager, so that I can have people I trust helping me moderate the site.

Table 6: System Manager User Stories

3. Supplementary Requirements

Section including business rules, technical requirements, and restrictions.
For each subsection, a table containing identifiers, names, and descriptions for each requirement.

3.1. Business rules

Identifier	Name	Description
BR01	Anonymization on Deletion	Upon account deletion, shared user data (e.g., comments, votes) is retained but anonymized.
BR02	Reputation Influence	User reputation is determined by the number of likes and dislikes on their posts or comments.

Identifier	Name	Description
BR03	Content Deletion Restriction	Users cannot delete posts or comments if they have received votes or comments from others.
BR04	Voting Limitations	Users can vote on a news item or comment once and cannot vote on their own content.
BR05	Following-based Filtering	Users can filter news based on posts and votes of those they follow, available only with established follower connections.
BR06	Content Moderation	Users can report inappropriate news or comments, with System Managers required to review within 72 hours.
BR07	Reputation Impact	Low reputation users may have their posts not showned at the top until their score improves.
BR08	Dates	The date of each post or comment is always equal or lesser than the current date

Table 7: The Bulletin Business Rules

3.2. Technical requirements

Identifier	Name	Description
TR01	Performance	The system should have response times shorter than 2 seconds to ensure the user's attention.
TR02	Robustness	The system must be prepared to handle and continue operating when runtime errors occur.
TR03	Scalability	The system must be able to handle an increasing number of users and their actions, including followers and posts.
TR04	Accessibility	The system must ensure that everyone can access the pages, regardless of handicap or browser choice.
TR05	Database	The PostgreSQL database must store information in a realiable and non-redundant way
TR06	Usability	The system must be simple and easy to use. The Bulletin is design with people that do not have much technical experience in mind so this is a critical requirement.
TR07	Ethics	The system must be respectful of user preferences and privacy and stop the spread of misleading news or information.
TR08	Web application	The system should be implemented using HTML, javascript, CSS and PHP.
TR09	Security	The system must ensure that only the user and the system managers(when necessary) can acess private information and edit the account, since the failure of this requirement can have consequences for the user it is critical.

Table 8: The Bulletin Technical Requirements

3.3. Restrictions

Identifier	Name	Description
R01	Content Moderation Capacity	The system relies on human intervention (System Managers) to handle reports of inappropriate content, which may lead to delays in review and action during high traffic or content reporting peaks.
R02	Reputation-Based Limitations	Low-reputation users may face less priority when posting or commenting, which could lead to user dissatisfaction and reduced platform engagement.
R03	Deadline	The system should be usable by the end of the semester.

Table 9: The Bulletin Restrictions

A3: Information Architecture

This part presents a overview of the information architecture of The Bulletin system, including a sitemap showing how pages will be organized and some wireframes that represent the main ideas for the design.

1. Sitemap

A simple representation of how The Bulletin pages can be used for a better understanding of this platform.

Figure 2: The Bulletin Sitemap

2. Wireframes

A representation of 4 of the most important pages of The Bulletin platform.

Figure 3: The Bulletin Homepage

UI01: Homepage

- 1: Menu that redirects to Homepage (UI01), Post Page (UI14), Help Page (UI02) and Contact Us & About Page (UI03) respectively
- 2: Section with the different tags that redirects to each Tag Page(UI18)
- 3: Direct access to the search feature
- 4: Option to filter the results
- 5: Small view of a news item with the option of *See More* that redirects to the Post Page (UI14)

Figure 4: The Bulletin Tag Page

UI18: Tag Page

- 1: Option to follow the tag of the page

Figure 5: The Bulletin Post Page

UI14: Post Page

- 1: Tags of that news item
- 2: Edit feature only available to the news item owner
- 3: Option to vote the post
- 4: Comments section with votes option and the possiblity to add a new comment

Figure 6: The Bulletin Profile Page

UI05: Profile Page

- 1: Edit feature only available to the profile owner
- 2: Section that (1) redirects to My Posts Page (UI15), (2) shows the list of followed tags, (3) redirects to Followers Page (UI09) and (4) to Following Page (UI10)
- 3: Simple graph that shows the user's reputation based on the total votes of his posts.

Revision history

Artifact - A1

Editor: João Cordeiro

October 3:

1. Added: Context and Motivation, Goals & Objectives, Features and Access Groups

By:

- João Cordeiro
- Rafael Campeão

October 8:

- Updated and Organized: Context and Motivation, Goals & Objectives, Features and Access Groups
- Added: Relations between groups

By:

- Luana Lima
- Miguel Neri

Artifact - A2

Editor: Miguel Neri

October 4:

- Added: Actors Representation and Description

By:

- João Cordeiro

October 5:

- Added: User Stories organized by actor
- Added: Business Rules, Technical Requirements and Restrictions
- Updated: Actors Representation and Description

By:

- João Cordeiro
- Luana Lima
- Miguel Neri
- Rafael Campeão

October 7:

- Updated: Actors Representation and Description
- Updated: User Stories
- Updated: Business Rules, Technical Requirements and Restrictions

By:

- João Cordeiro
- Luana Lima
- Miguel Neri

October 8:

- Updated: Business Rules, Technical Requirements and Restrictions

By:

- Rafael Campeão

Artifact - A3

Editor: Luana Lima

October 8:

- Added: Sitemap
- Added: Wireframes

By:

- João Cordeiro

- Luana Lima
- Miguel Neri
- Rafael Campeão

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Comments