Requirements Engineering

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ER: Requirements Specification Component

Product vision

askFEUP aims to create a collaborative online platform where FEUP students can ask questions, share experiences, and connect on academic and social topics. Our goal is to build a user-friendly, mobile-responsive space where students can seek advice, offer help, and engage with peers in a supportive community.

The platform will feature categorized questions, personalized content via a "For You" page, and interactive tools like upvoting and leaderboards to encourage participation. With clear roles for administrators, moderators, and users, askFEUP will foster a respectful, well-moderated environment, becoming a central hub for student engagement and collaboration.

A1: askFEUP

The askFEUP system is being developed by a small software team of 4 students as a product targeted at university students who want to engage in a collaborative online platform for asking questions and sharing experiences. Currently, there is a lack of dedicated platforms at FEUP that allow students to seek advice and connect with peers on topics relevant to their academic and social lives.

The main goal of the project is the development of a web-based platform, similar to Reddit, where students can ask and answer questions on a variety of topics, ranging from academic subjects to social life. The platform will also allow users to categorize questions using tags such as "games", "sports", "events", "activism" and more. This system will be useful to students seeking advice, information, or opinions from their peers.

This application allows users to interact with the other users by asking and answering questions, as well as liking or disliking posts and comments. Additionally, the platform features a "For You" page that shows questions related to the user's favorite tags, allowing a tailored experience.

Users are separated into groups with different permissions. These groups include administrators, who have full access to the system, and moderators, who help ensure that community guidelines are followed. Authenticated users, including moderators and administrators, can post questions, comment, edit or delete their posts, and mark helpful answers. Guests can only read the questions and replies.

The platform will also provide a leaderboard, where users can see the top contributors, ranked by the number of questions asked, answers provided, or likes accumulated. Moreover, users will have the option to follow specific tags, creating a more personalized experience. It will be available a search feature, equipped with many filters and tools, where the users can find questions related to a specific topic.

The system will feature an adaptive design, ensuring a seamless experience across devices, from desktop to smartphones, and will prioritize an easy-to-use interface that enhances overall user experience.

A2: Actors and User stories

This artifact outlines the actors of the system and their user stories. It serves as a guide of the design and development process, ensuring that the project's requirements are met.

1. Actors

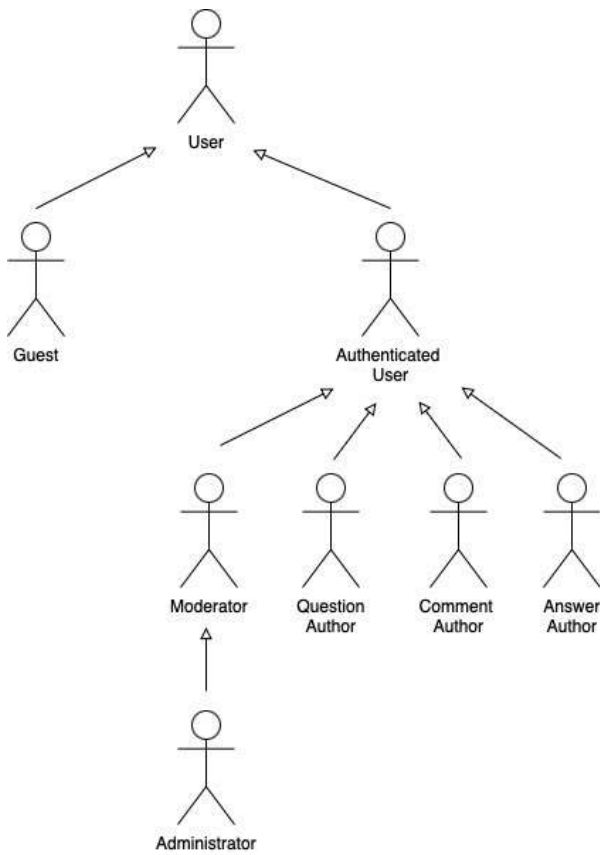Figure 1 displays the actors for the **askFEUP** system, which are described in Table 1.

Figure 1: askFEUP actors

Identifier	Description
User	A general actor representing anyone that can interact with public information of the system.
Guest	An unauthenticated user who can login or register to the system.
Authenticated User	A user who has logged into the system and can access personalized features, and interact with other users.
Question Author	An authenticated user who posts questions to the system.
Answer Author	An authenticated user who provides answers to posted questions.
Comment Author	An authenticated who leaves comments on answers.
Administrator	Authenticated user with full system access, responsible for managing users and content.
Moderator	Authenticated user responsible for overseeing content of the system and ensuring its compliance with the rules.

Table 1: askFEUP actors description

2. User Stories

The following sections contain the user stories for the actors of the **askFEUP** system.

2.1. User

Identifier	Name	Priority	Description	Responsible
FR.031	Exact Match Search	High	As a User, I want the ability to search for any question by exact match, so I can quickly find exactly what I'm looking for.	Jorge
FR.032	Full-text Search	High	As a User, I want the ability to search for any question using full-text search, so I can easily find what I need.	Eduardo
FR.101	View Top Questions	High	As a User, I want to filter the home page by top questions (based on number of likes, and responses), so that I can easily view the most popular questions.	Mariana
FR.103	Browse Questions	High	As a User, I want to browse through all questions posted on the system, so that I can discover topics of interest without having to search for specific questions.	Tatiana

Identifier	Name	Priority	Description	Responsible
FR.105	View Question Details	High	As a User, I want to view the details of a specific question (e.g., author, date, number of likes, and responses), so that I can understand the relevance of the question.	Eduardo
FR.033	Search over Multiple Attributes	Medium	As a User, I want the ability to search across multiple attributes, so I can find anything more easily.	Jorge
FR.034	Search Filters	Medium	As a User, I want to be able to search with filters, so I can search anything with more ease.	Tatiana
FR.104	Browse Questions by Tags	Medium	As a User, I want to browse questions based on tags (e.g., university life, sports, events), so that I can easily find questions relevant to topics I'm interested in.	Eduardo
FR.051	Placeholders in Form Inputs	Medium	As a User, I want to see placeholders in form inputs, so I can have clearer guidance on what to enter.	Mariana
FR.053	Contextual Help	Medium	As a User, I want to be able to seek contextual help, so I can find a solution to my problem.	Tatiana
FR.061	About Us	Medium	As a User, I want an 'About Us' page, so I can learn about the people behind the website.	Eduardo
FR.063	Contacts	Medium	As a User, I want to have a 'Contacts' page, so I can reach out to the people responsible for the platform.	Mariana
FR.102	View Recent Questions	Medium	As a User, I want to filter the home page by most recent questions, so that I can stay up-to-date with the latest discussions.	Jorge
FR.052	Contextual Error Messages	Medium	As a User, I want to receive contextual error messages, so I can grasp the situation more effectively.	Mariana
FR.062	Main Features	Medium	As a User, I want to see the main core features, so I can better understand the website I am using.	Tatiana
FR.106	View User Profiles	Medium	As a User, I want to view other users' profiles (including their name, course, tags, number of likes, and number of questions asked or answered), so that I can connect with users with similar interests.	Jorge

Table 2: User user stories

2.2. Guest

Identifier	Name	Priority	Description	Responsible
FR.011	Login	High	As a Guest, I want the ability to log in the system, so that I can access my personal profile.	Mariana
FR.012	Registration	High	As a Guest, I want the option to register an account, so I can engage with and participate in the community.	Tatiana
FR.013	Recover Password	Medium	As a Guest, I want the ability to recover my password, so I can regain access to my account.	Eduardo

Table 3: Guest user stories

2.3. Authenticated User

Identifier	Name	Priority	Description	Responsible
FR.015	Logout	High	As an Authenticated User, I want the ability to log out of the system, so that I can securely end my session and protect my account.	Jorge
FR.021	View Profile	High	As an Authenticated User, I want to view my profile, so I can understand what other users can see about me.	Eduardo
FR.022	Edit Profile	High	As an Authenticated User, I want to be able to edit my personal information, so I can keep my information up-to-date.	Mariana

Identifier	Name	Priority	Description	Responsible
FR.201	View Personal Feed	High	As an Authenticated User, I want to view a personalized feed of questions (based on the tags and users I follow), so that I can easily interact with content relevant to my interests.	Tatiana
FR.208	View My Questions	High	As an Authenticated User, I want to view a list of all the questions I have posted in my profile, so that I can track the interactions with my questions.	Eduardo
FR.209	View My Answers	High	As an Authenticated User, I want to view a list of all the answers I have given in my profile, so that I can track the interactions with my questions.	Mariana
FR.014	Delete Account	Medium	As an Authenticated User, I want the option to delete my account, so I can protect my privacy.	Jorge
FR.023	Support Profile Picture	Medium	As an Authenticated User, I want the ability to set a profile picture, so other users can easily recognize me.	Tatiana
FR.205	Vote on Answers	Medium	As an Authenticated User, I want to like answers, so that I can express the quality or relevance of an answer to the community.	Eduardo
FR.210	Follow Question	Medium	As an Authenticated User, I want to follow specific questions, so that I can receive notifications on new answers.	Jorge
FR.211	Follow Tags	Medium	As an Authenticated User, I want to follow specific tags, so that I can tailor my personal feed to topics that match my interests.	Tatiana
FR.024	View Personal Notifications	Medium	As an Authenticated User, I want to be able to view my notifications, so I can stay informed about what occurred while I was away.	Mariana
FR.204	Vote on Questions	Medium	As an Authenticated User, I want to like questions, so that I can express the quality or relevance of a question to the community.	Eduardo
FR.221 📌	Report Content	Low	As an authenticated user, I want to report inappropriate or harmful content, so that I can ensure that the community remains safe and respectful.	Tatiana
FR.222 📌	Badge Award	Low	As an authenticated user, I want to earn badges or achievements for contributing to the community, so that I feel motivated and rewarded for my engagement.	Mariana
FR.223 📌	Statistics	Low	As an authenticated user, I want to view my personal statistics, including the number of questions I have asked, answers I have given, and comments I have made, so that I can track my contributions and engagement in the community.	Jorge
FR.224 📌	Save Questions	Low	As an authenticated user, I want to view and manage my saved questions or answers, so that I can quickly revisit important or interesting content	Eduardo

Table 4: Authenticated User user stories

2.4. Question Author

Identifier	Name	Priority	Description	Responsible
FR.202	Post Question	High	As a Question Author, I want to post a question with specific tags to the system, so that I can receive feedback from the community.	Mariana
FR.401	Edit Question	High	As a Question Author, I want to edit my questions, so that I can correct any mistakes or clarify its content.	Tatiana
FR.402	Delete Question	High	As a Question Author, I want to delete my questions, so that I can remove content that I no longer wish to share.	Jorge
FR.502	Mark Answer as Correct	Medium	As a Question Author, I want the ability to mark an answer as 'Correct' (Useful), so that other users can easily trust that answer.	Eduardo
FR.701-a	Notification of Answers	Medium	As a Question Author, I want to receive notification of answers to my questions, so that I can be aware of any responses.	Mariana
FR.702-a	Vote on Content	Medium	As a Question Author, I want to be notified when my question receives likes, so that I can track the engagement with my content.	Tatiana

Identifier	Name	Priority	Description	Responsible
FR.501	Edit Question Tags	Medium	As a Question Author, I want the ability to edit the question's tags, so I can better contextualize my question.	Jorge

Table 5: Question Author user stories

2.5. Answer Author

Identifier	Name	Priority	Description	Responsible
FR.203	Post Answer	High	As an Answer Author, I want to answer to other users' questions, so that I can share my knowledge and insights on topics of interest.	Jorge
FR.403	Edit Answer	High	As an Answer Author, I want to edit my answers, so that I can update it with new information.	Eduardo
FR.404	Delete Answer	High	As an Answer Author, I want to delete my answers, so that I can remove information that I no longer wish to share.	Mariana
FR.701-b	Notification of Answers	Medium	As an Answer Author, I want to receive notification of comments to my answers, so that I can be aware of any responses.	Tatiana
FR.702-b	Vote on Content	Medium	As an Answer Author, I want to be notified when my answer receives likes, so that I can track the engagement with my content.	Eduardo

Table 6: Answer Author user stories

2.6. Comment Author

Identifier	Name	Priority	Description	Responsible
FR.207	Comment on Answers	Medium	As a Comment Author, I want to comment on answers, so that I can provide provide feedback on another user's response.	Tatiana
FR.405	Edit Comment	Medium	As a Comment Author, I want to edit my comments, so that I can update it with new content.	Jorge
FR.406	Delete Comment	Medium	As a Comment Author, I want to be able to delete my comments, so that I can remove information that I no longer wish to share.	Mariana
FR.702-c	Vote on Content	Medium	As a Comment Author, I want to be notified when my comment receives likes, so that I can track the engagement with my content.	Eduardo

Table 7: Comment Author user stories

2.7. Administrator

Identifier	Name	Priority	Description	Responsible
FR.042	Administer User Accounts (search, view, edit, create)	High	As an administrator, I want access to multiple admin features, so I can effectively manage the website.	Jorge
FR.801	Manage Tags	Medium	As an administrator, I want to manage all the tags, so our website can provide a diverse range of content.	Mariana
FR.041	Administrator Accounts	Medium	As an administrator, I want to have an administrator account, so I can access various features needed to manage the website effectively.	Tatiana
FR.043	Block and Unblock User Accounts	Medium	As an administrator, I want the ability to block and unblock accounts, so I can better manage the community in accordance with the rules.	Eduardo
FR.044	Delete User Account	Medium	As an administrator, I want to be able to delete a user account, so I can reinforce the right to privacy.	Jorge
📌 FR.802	Global Statistics	Low	As an administrator, I want to be able to check the global statistics of our web app, so we can pursue new features and update current features.	Tatiana

Table 8: Administrator user stories

2.8. Moderator

Identifier	Name	Priority	Description	Responsible
FR.601	Delete Content	Medium	As a moderator, I want to remove a piece of content, so that I can remove inappropriate content.	Jorge
FR.602	Edit Question Tags	Medium	As a moderator, I want to edit the tags of a question, so I can ensure the content is categorized appropriately.	Mariana
📌 FR.603	Ban User	Low	As a moderator, I want to ban a user, so that I can maintain an healthy and safe environment.	Eduardo

Table 9: Moderator user stories

3. Supplementary Requirements

This section includes business rules, technical requirements, and restrictions.

3.1. Business Rules

Identifier	Name	Description
BR.011	Anonymous Data Upon Deletion	Upon account deletion, shared user data (e.g. comments, reviews, likes) is kept but is made anonymous
BR.102	Edit History Indication	Questions and answers edited after being posted should have a clear indication of the editions.
BR.103	Badge System Based on User Engagement	User badges are dependent on the likes and dislikes received on his questions and answers, and also on actions made by the user (first question, first answer, etc).
BR.104	Restrictions on Banned Users	Banned users are forbidden from interacting with the community, having the same features as a guest.
BR.105	Question Author Response Restrictions	A Question Author cannot answer and like his question, although he can comment on answers.
BR.106	Edit Post	Posts can only be edited by its author.
BR.107	Edit User Profile	The user profile can only be edited by its respective user.

Table 10: askFEUP Business Rules

3.2. Technical Requirements

Identifier	Name	Description
TR.01	Performance	The system should respond within 2 seconds or less to maintain user engagement.
TR.02	Robustness	The system must remain operational and resilient when runtime errors occur.
TR.03	Scalability	The system must be capable of managing increased user activity and scaling efficiently as the user base grows.
TR.04	Accessibility	The system should provide full access to all users, regardless of disabilities or the type of web browser they are using.
TR.05	Database	PostgreSQL database management system will be used.
TR.06	Web Development	The system must be developed as a web application featuring dynamic pages, utilizing HTML, JavaScript, CSS, and PHP.

Table 11: askFEUP Technical Requirements

3.3. Restrictions

Identifier	Name	Description
RE.01	Unauthorized Commercial Activity	Users and organizations are prohibited from using the platform to promote or sell products, services, or events without prior approval. This includes affiliate links, advertisements, or paid promotions.

Identifier	Name	Description
RE.02	Data Monetization	User data, including personal information and browsing habits, will not be sold to third parties. All user data will be handled in compliance with relevant data protection regulations (e.g., GDPR).
RE.03	Third-Party Advertisements	askFEUP will not host third-party ads or allow external businesses to post promotional content without explicit authorization, maintaining a focus on student engagement rather than commercialization.

Table 12: askFEUP Restrictions

A3: Information Architecture

The askFEUP system is divided into four main sections: static pages that offer general system information (Static Pages), pages for browsing and accessing the questions (Question Pages), individual user-specific pages (User Pages), and pages dedicated to administrative functions (Admin Pages).
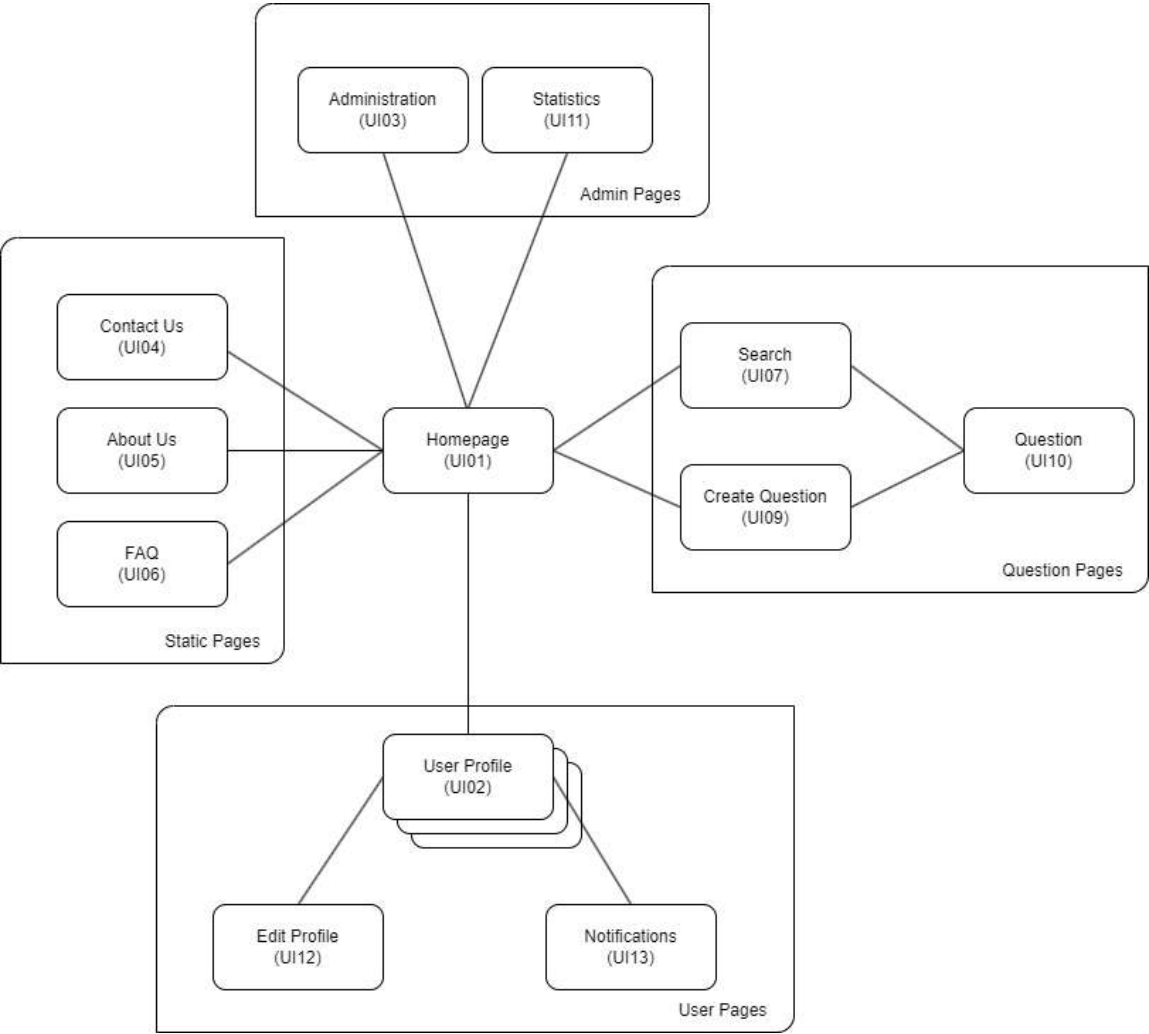
1. Sitemap

Figure 2: askFEUP sitemap.
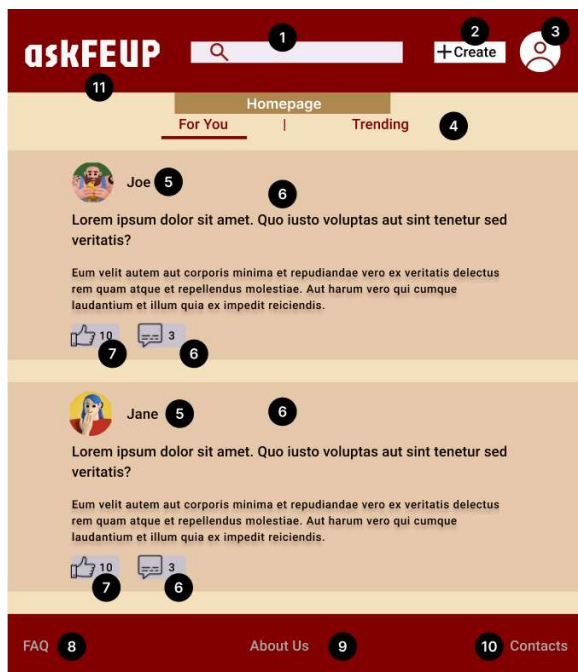
2. Wireframes

2.1. Homepage

Figure 3: Homepage (UI01) wireframes.

1. Search Feature
2. Direct access to create post feature
3. Direct access to view profile feature
4. Buttons to help the user navigate
5. The user can go directly to the respective's profile
6. Access to the discussion page of the answer
7. Feature to like a post
8. The user can access the FAQ page
9. The user can access the About us page
10. The user can access the Contacts page
11. Direct access to the main page
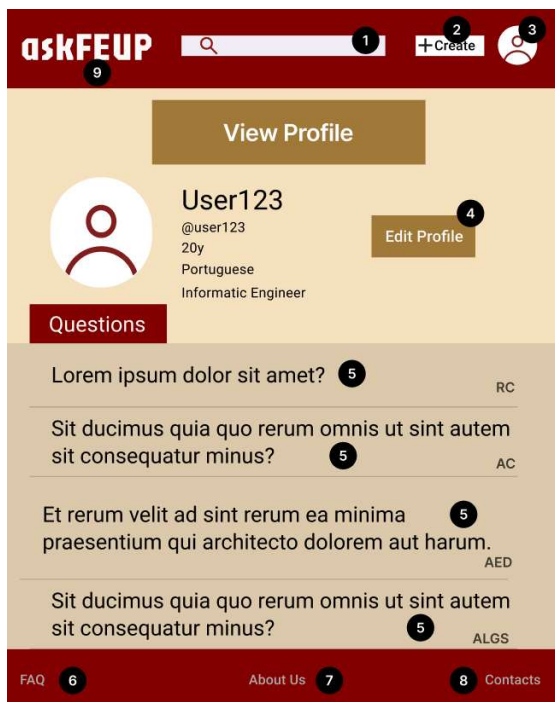
2.2. User Profile Page

Figure 4: User Profile (UI02) wireframes.

1. Search Feature
2. Direct access to create post feature
3. Direct access to view profile feature
4. The user can edit his own profile
5. Direct accesss to the discussion page of the answer

6. The user can access the FAQ page
7. The user can access the About us page
8. The user can access the Contacts page
9. Direct access to the main page

Revision history

Changes made to the first submission:

> Updated User Stories Priority: FR105 (Medium -> High) and FR207 (High -> Medium)

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Comments