er

ER: Requirements Specification Component

Our project aims to redefine what it means to be online and have questions. Our goal is to ensure that every user feels comfortable asking questions and confident that they will receive fast and constructive answers in a friendly environment. We will have a rating system to ensure only the best and most helpful answers according to the community get to the top.

A1: 4NSWERS

As Learners, we often have questions that need answers as fast as possible. So we decided to create a Collaborative Q&A Content Rated Forum Website adapted for those situations.

In this website, the user can post their questions or doubts about a certain topic, marking the post with the appropriate tags, and other users can respond with what they think is the best answer to the current problem. To be able to do that, an account must be created. If not, the guest can only see the questions and responses, but cannot partake in the post's action.

As those various answers start stacking up on a certain post, they are positively or negatively voted by all the users, affecting the answers' order of appearance (meaning the most publicly supported answers appear at the top).

The website contains a points system (gamification). The responders with the top 4 answers on a certain post according to the votes, and the responder that has had its answer marked as USEFUL by the poster, receive reward points. The poster also receives a certain amount of points depending on how popular the question was.

The top 16 users with the most points are shown in a special 'Hall of Fame' ranking in the website.

Users can make comments on other responders' answers, and can search for specific question posts and users.

Knowing that the website encourages a fast answer delivery mentality, all questions are open only during a predetermined amount of time (up to a maximum of 48 hours) selected by the poster.

In the feed, all active posts are shown and can be ordered by newest, most urgent (running outta time) and hottest (most positive votes). Users can also filter the feed to only show posts with their 'followed' tags.

The question closes when time runs out, or when the poster declares one of the answers as USEFUL.

After its closure, the post will remain up for users to read it, despite them being now blocked from posting new answers and voting on existing ones.

During the entirety of this process, an Admin may appear and provide an analysis of the answer(s), alerting the community for the existence of an incorrect answer with alerts, independently if the original poster declared that answer as USEFUL or not.

The probability of a post receiving an Admin's analysis is higher on posts that are having more user interactions (trending), or when a significant amount of users have reported a certain question, answer or comment.

Responders that have had their answers flagged by an Admin's Alert, may lose a certain amount of points, that amount depending on the type of the Alert. The same applies to posters with flagged questions.

A user can acquire the title of admin for a tag after earning a specific number of points and providing a certain number of correct answers to posts associated with said tag.

The central motivation behind this project is to find a way to reduce the frustration of not having someone to ask about an important and/or urgent question or doubt. Our project helps by having multiple users engaged to answer our questions the best way they can.

A2: Actors and User stories

The goal for this artifact is to define how users will interact with our website. It also serves as a guideline for features.
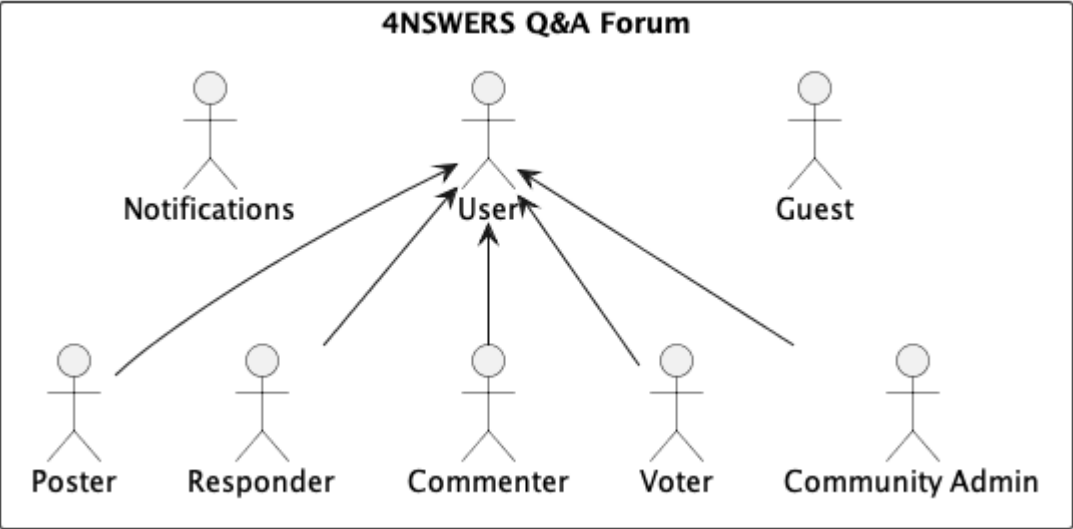
1. Actors

Table of Actors

Actor	Description
Guest	A non-authenticated user that can read questions and answers.
User	Any individual that can post questions, answer questions, vote, and comment on answers.
Poster	A user who posts a question and selects a timeframe during which answers can be submitted, and can eventually declare one of them USEFUL.
Responder	A user who answers questions and contributes to discussions by commenting on other answers.
Voter	A user who votes on the validity or quality of answers to help promote the best ones.
Community Admin	A moderator responsible for flagging harmful or incorrect answers (ALERTS) and moderating users in its community.
Notifications	A system actor that provides real-time updates and alerts to users regarding relevant activities on the platform.

2. User Stories

2.1. Actor 1: Guest

ID	Name	Priority	Responsible	Description
US01	Read a Question and respective Answers	High	Pedro Santos	As a Guest, I want to read questions so that I can get answers to my doubts without having to create an account.
US02	Create an account	High	Rodrigo de Sousa	As a Guest, I want to be able to create an account so I can log in.
US03	Sign in	High	Leonor Couto	As a Guest, I want to be able to sign in to my account so I can be identified.
US04	Search for Questions	Medium	Afonso Castro	As a Guest, I want to search for questions similar to mine that have already been answered so I can find other answers to similar problems.
US05	Search for Users	Medium	Pedro Santos	As a Guest, I want to search for other users so I can check their profile.
US06	See Contacts	Medium	Afonso Castro	As a Guest, I want to know the contacts and informations about the site before I start using it, so that I can get help if I need.

2.2. Actor 2: User

ID	Name	Priority	Responsible	Description
US07	Log out	High	Rodrigo de Sousa	As a User, I want to be able to log out so other people using the device don't use my account.
US08	Follow Tags	High	Leonor Couto	As a User, I want to subscribe to tags, so that I can get questions that I am interested in on my feed.
US09	View Closed Questions	Medium	Afonso Castro	As a User, I want to be able to view closed question feeds so I can learn from past discussions.
US10	Report a Question/Answer	Medium	Leonor Couto	As a User, I want to be able to report Question/Answer that seem harmful or misjudged so that admin can review the Question/Answer.
US11	Edit Profile	Medium	Pedro Santos	As a User, I want to be able to edit my profile so I can change my information.
US12	Delete Profile	Medium	Rodrigo de Sousa	As a User, I want to be able to delete my profile so I don't have an account anymore.
US13	Manage Posts	Medium	Leonor Couto	As a User, I want to be able to edit and delete my old posts, answers and comments, so they are not public anymore.
US14	Change Password	Medium	Leonor Couto	As a User, I want to be able to change my password so I can ensure the security of my account.
US15	Add and Change the Profile Picture	Medium	Rodrigo de Sousa	As a User, I want to be able to add and change my profile picture so I can personalize my account and make it easily recognizable.
US16	Follow Questions	Medium	Pedro Santos	As a User, I want to follow my favorite questions so I can receive updates and stay informed about new answers.

2.3. Actor 3: Poster

ID	Name	Priority	Responsible	Description
US17	Post a Question	High	Afonso Castro	As a Poster, I want to post a question so that others can provide answers to my query.
US18	Set a Time Limit for Question	High	Leonor Couto	As a Poster, I want to set a time limit for how long answers can be submitted to my question so the question closed when not needed anymore.
US19	Edit own Question	Medium	Pedro Santos	As a Poster, I want to be able to edit my question after having already posted it so that I can fix my question.
US20	Close Question by Selecting Answer	Medium	Rodrigo de Sousa	As a Poster, I want to close my question when I have received a satisfactory answer so no one else can answer.
US21	Earn points	Medium	Afonso Castro	As a Poster, I want to earn some points if my question is popular so I go up in the rankings.
US22	Delete its own Question	Medium	Afonso Castro	As a Poster, I want to be able to delete my question so I can remove it if it is no longer relevant or was posted by mistake.
US23	Edit Tags	Medium	Leonor Couto	As a Poster, I want to edit my tags after posting a question, so that I can make sure the question fits the correct tags.

2.4. Actor 4: Responder

ID	Name	Priority	Responsible	Description
US24	Respond to Question	High	Pedro Santos	As a Responder, I want to be able to answer to questions that interest me so I can give my input.
US25	Receive Votes on my Answer	High	Pedro Santos	As a Responder, I want users to vote on my answer to determine its relevance and correctness so that I can learn if my solution is good or not.
US26	See if Answer is Marked USEFUL	High	Afonso Castro	As a Responder, I want to see if my answer has been marked USEFUL by the poster, so I know if I have successfully helped the poster.
US27	Earning points	Medium	Rodrigo de Sousa	As a Responder, I want to earn points if I'm one the top 4 best answers and/or if the poster marks my answer as USEFUL so that I can increase my chances of being in the top 16 hall of fame.
US28	Edit own Answer	Medium	Pedro Santos	As a Responder, I want to be able to edit my answer, so that I can make sure I get my point across clearly and can help.
US29	Delete own Answer	Medium	Rodrigo de Sousa	As a Responder, I want to be able to delete my answer, so that I can avoid duplicates or wrong answers.

2.5. Actor 5: Commenter

ID	Name	Priority	Responsible	Description
US30	Comment on Responses	High	Afonso Castro	As a Commenter, I want to be able to comment on any post's responses, so I can complete them with any information I think is relevant.
US31	Edit Comment	Medium	Leonor Couto	As a Commenter, I want to edit my comment so I can correct mistakes or update my thoughts.
US32	Delete Comment	Medium	Rodrigo de Sousa	As a Commenter, I want to delete my comment so so I can remove it if it is no longer relevant or appropriate.

2.6. Actor 6: Voter

ID	Name	Priority	Responsible	Description
US33	Vote on Answers	High	Rodrigo de Sousa	As a Voter, I want to positively or negatively vote on answers based on how helpful and accurate I think it is to the problem, so that I can help the Poster obtain a satisfactory answer.
US34	View Answer Rankings	Medium	Leonor Couto	As a Voter, I want to see how answers rank based on community votes so that I can check the most popular answers.
US35	Vote on Questions	Medium	Afonso Castro	As a Voter, I want to vote on my favorite quest the most relevant and interesting questions are highlighted for others.
US36	Earning points	Low	Leonor Couto	As a Voter, I want to earn some points for voting so that my time reading other people's posts is also rewarded points wise.

2.7. Actor 7: Community Admin

ID	Name	Priority	Responsible	Description
US37	Issue Alerts on questions	High	Leonor Couto	As an Admin, I want to issue an alert when an question is found to be inappropriate or irrelevant to the community it was posted in, so that I can give users an experience that is aligned with their expectations.
US38	Issue Alerts on answers	High	Pedro Santos	As an Admin, I want to issue an alert when an answer is found to be incorrect, even if it is marked USEFUL, so that I can inform future readers that the answer might not be correct.
US39	Remove Harmful Content	High	Rodrigo de Sousa	As an Admin, I want the ability to delete harmful or misleading content so that I can maintain the integrity of the platform.
US40	Moderate users in the community	High	Afonso Castro	As an Admin, I want the ability to moderate users in the community, having the ability to alert, and if necessary, to temporarilly or permanently ban them so that I keep my community clean.
US41	Check reported Answers	Medium	Rodrigo de Sousa	As an Admin, I want to be able to analyse questions and answers that have been reported so that I can keep my community clean.
US42	Edit Question Tags	Medium	Afonso Castro	As an Admin, I want to be able to edit question tags so I can improve the organization and discoverability of content.
US43	Manage Tags	Medium	Pedro Santos	As an Admin, I want to be able to edit tags, so that I can change offensive content.

2.8. Actor 8. Notifications

ID	Name	Priority	Responsible	Description
US44	Send Notifications	High	Afonso Castro	As a user, I want to receive notifications when relevant actions occur, so that I stay informed.
US45	Answer to Question	High	Rodrigo de Sousa	As a user, I want to get notifications on the answers users send me, so that I can get my answers.
US46	Vote on Content	High	Pedro Santos	As a user, I want to get notifications on the votes I get, so that I am aware of my aura.
US47	Help	Low	Leonor Couto	As a user, I want help notifications to appear, so that I can get help with things I don't know.

3. Supplementary Requirements

3.1. Business Rules

ID	Name	Description
BR1	Voting Integrity	Users can only vote once per answer. A vote may be changed, but not duplicated.
BR2	Editing Integrity	Questions and answers edited after being posted should have a clear indication of the editions.
BR3	Post Closure Policy	Questions will close either when the selected time expires or when the poster marks an answer as USEFUL, whichever occurs first.
BR4	Reporting Answers	Users can report an answer they think is harmful or incorrect. After reaching a threshold of reports, the system alerts Admin for review.
BR5	User can not auto-answer	Users can not answer to their own posts, but can comment on other users' answers to their questions.
BR6	User can not auto-vote	Users can not vote to their own answers, but can vote on other users' answers to the questions.
BR7	Deleted User Contents	Questions, answers and comments remain even after the user's account elimination, appearing as posted by an deleted account.
BR8	Time Paradox Forbidden	Users can not answer a question THAT STILL HASN'T BEEN POSTED, AS IT IS IMPOSSIBLE ACCORDING TO OUR CURRENT UNDERSTANDING OF THE LAWS OF TIME AND SPACE.
BR9	User badges	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).

3.2. Technical Requirements

ID	Name	Description
TR1	**Responsive Design**	**The platform must be accessible on desktop devices.** Because we want the users to be able to use this regardless of the size of their screen.
TR2	**Notification System**	**Users must receive notifications when someone responds to their question, comments on their answer, or issues an alert.** Because we want the users to be informed as soon as possible.
TR3	**Accessibility**	**The platform must be accessible to everyone that follows the terms and conditions.** Because we want to receive anyone that promotes a healthy environment in our platform.
TR4	Tags	Tags will group related questions by topic and theme.
TR5	Urgency	Questions will be identified with the timeframe the question would need to be answered in.
TR6	Performance	The system should have response times shorter than 2s to ensure the user's attention.
TR7	Robustness	The system must be prepared to handle and continue operating when runtime errors occur.
TR8	Scalability	The system must be prepared to deal with the growth in the number of users and their actions.

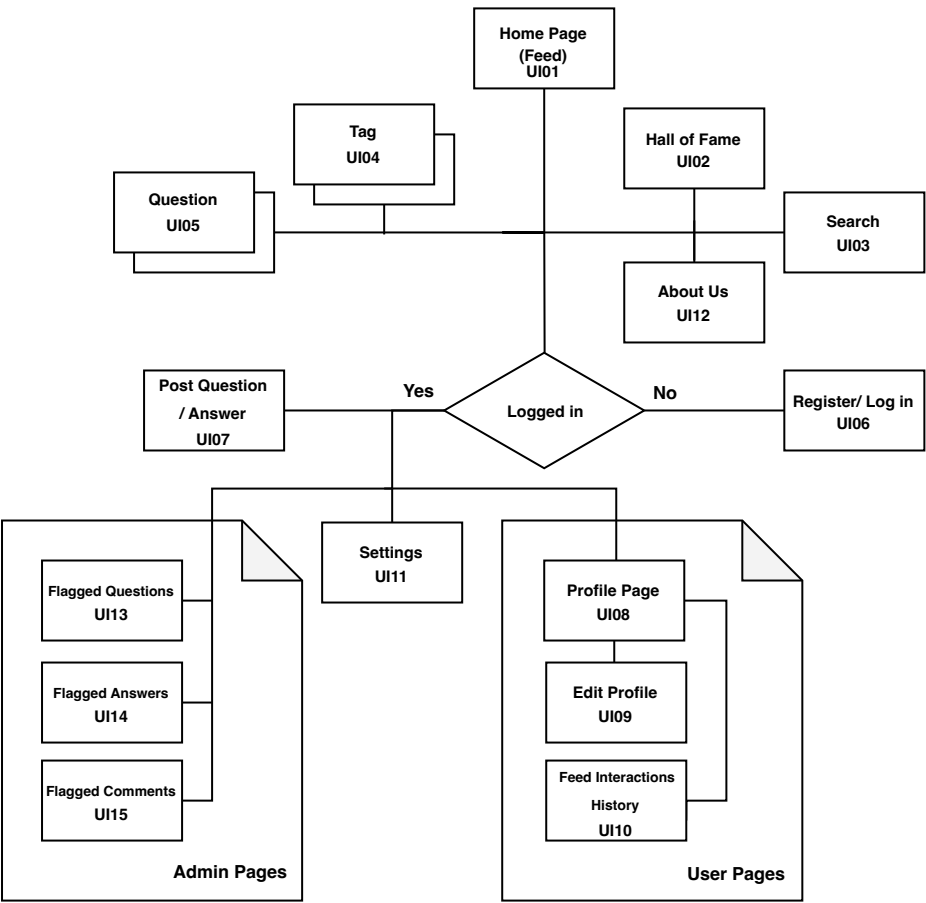## 3.3. Restrictions

ID	Name	Description
R1	Anonymous Posting Not Allowed	Users must be registered and logged in to post questions or answers.
R2	Maximum Time Limit for Questions	A question can remain open for a maximum of 48 hours before it automatically closes.
R3	Admin Alert Response Time	Admins must review reported content within 24 hours to ensure swift removal of harmful content or alert activation.

A3: Information Architecture

This artefact provides a high-level overview of the system's information architecture, including a sitemap and wireframes for key pages, aimed at identifying user requirements, testing the interface, and enabling iterative design improvements.
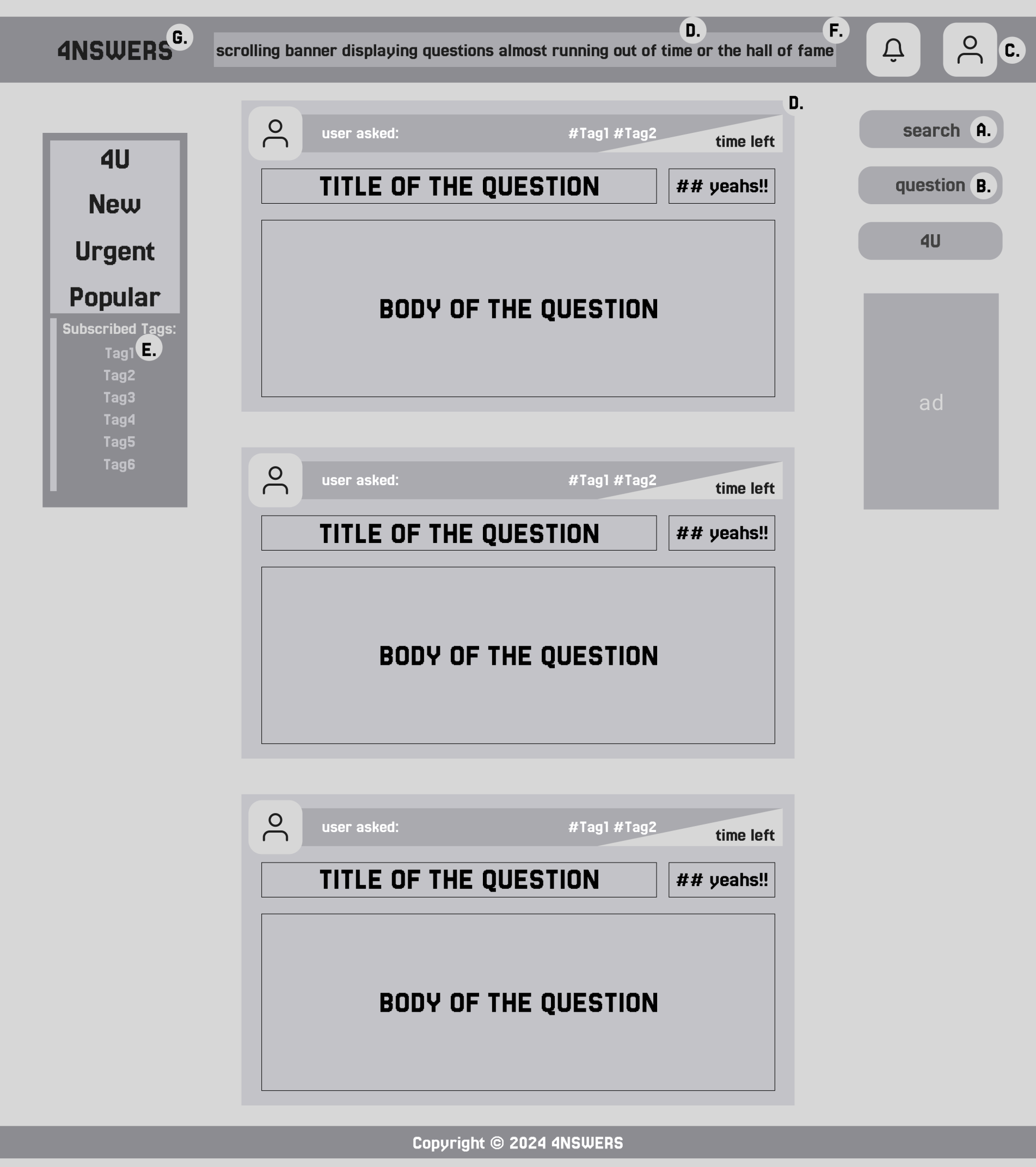
1. Sitemap

The image below illustrates the pages that will be available on 4nswers and shows how users can navigate or interact with them. It offers a straightforward overview of the website's usage process.

2. Wireframes

2.1. Home Page

4NSWERS G.

scrolling banner displaying questions almost running out of time or the hall of fame   D.   F.

C.

4U

New

Urgent

Popular

Subscribed Tags:
Tag1 E.
Tag2
Tag3
Tag4
Tag5
Tag6

D.

user asked: #Tag1 #Tag2
time left

TITLE OF THE QUESTION   ## yeahs!!

BODY OF THE QUESTION

search A.

question B.

4U

ad

user asked: #Tag1 #Tag2
time left

TITLE OF THE QUESTION   ## yeahs!!

BODY OF THE QUESTION

user asked: #Tag1 #Tag2
time left

TITLE OF THE QUESTION   ## yeahs!!

BODY OF THE QUESTION

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```
A. -> Search Page UI03
B. -> Post Question Page UI07
C. -> Profile Page UI08
D. -> Question Page UI05
E. -> Tag Page UI04
F. -> Hall of Fame UI02
G. -> Main Page UI01
```

2.2. Post Page

4NSWERS G.

C.

4U

New

Urgent

Popular

Subscribed Tags:
Tag1 E.
Tag2
Tag3
Tag4
Tag5

search A.

answer B.

report

user asked: #Tag1 #Tag2 time left

TITLE OF THE QUESTION ↑ ### ↓

BODY OF THE QUESTION

Marked as Useful by the Poster!

user answered: 1st: ## aura

ANSWER ↑ ↓

5 Comments

user answered: 2nd: ## aura

ANSWER ↑ ↓

2 Comments

💬 add your comment

user commented:
BODY OF THE COMMENT

user commented:
BODY OF THE COMMENT

user answered: 3rd: ## aura

ANSWER ↑ ↓

3 Comments

user answered: 4th: ## aura

ANSWER ↑ ↓

3 Comments

SHOW MORE

2.3. Profile Page

Profile Page

4NSWERS **G.** | scrolling banner displaying questions almost running out of time or the hall of fame **D.** ... **F.** | 🔔 | 👤 **C.**

search **A.**

question **B.**

report/edit

Questions placed:

TITLE OF THE QUESTION — TIME LEFT **D.**
3671 Answers received, with 43 yeahs!

TITLE OF THE QUESTION — Closed
3671 Answers received, with 43 yeahs!

TITLE OF THE QUESTION — Closed
3671 Answers received, with 43 yeahs!

👤
User
@user

Sort Content:

View Questions
View Answers
View Comments

ad

Answers given:

BODY OF THE ANSWER

Answered to: TITLE OF THE QUESTION — ## aura | 4th

Comments made:

BODY OF THE COMMENT

Commented to: BODY OF THE ANSWER

BODY OF THE COMMENT

Commented to: BODY OF THE ANSWER

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```
C. -> Profile Page UI08
D. -> Question Page UI05
E. -> Tag Page UI04
F. -> Hall of Fame UI02
G. -> Main Page UI01
```

Revision history

Changes made to the first submission:

1. Added A1 and A2 [2024-09-26]
2. Artefacts Improved (A1 and A2) [2024-09-30]
3. Minor Revisions to the Document and Starting A3 [2024-10-02]
4. Added Responsibilities to User Stories [2024-10-02]
5. Updating Picture [2024-10-02]
6. Text Revision and Admin's role reworked [2024-10-02]
7. Added Wireframes [2024-10-05]
8. Added Sitemap and References [2024-10-07]
9. A2 Revisions [2024-10-08]
10. Delivery [2024-10-08]

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