

SPECIFICATION OF SYSTEM REQUIREMENT QnAI



QnAI

dedicated to:

AI Laboratory of Telkom University

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1. Introductory

1.1 Purpose of The Document

The purpose of this document is to present a detailed description of the Web Application QnAI (Question and Answer Artificial Intelligence). It will explain the purpose and features of the QnAI, the interfaces of the system, what the system will do, the constraints under which it must operate and how the system will react to external stimuli. This document is intended for both the stakeholders and the developers of the system and will be proposed to all members of the AI Laboratory and society that want to know about AI.

1.2 Document Convention

This document uses Times New Roman as the font, with the font size being 12 pt. This document uses the following conventions.

AI	Artificial intelligence
ID	Identity/Identification

1.3 Scope of Product

This application will be a web-based application and this app will belong to Artificial Intelligence of Telkom University and AI enthusiasts. It is designed to be a forum that will be used for AI Lab and AI enthusiasts to share information about AI tech. We hope this app will help students in the AI lab of Telkom university find resources, study cases, datasets and information about Artificial intelligence. The complete information about the app will be in 2. Overall description.

1.4 Reference

IEEE

IEEE Std 830–1998 IEEE Recommended Practice for Software Requirements Specifications.
IEEE Computer Society, 1998.

Medium

vincetran-28429.medium.com/software-requirements-specification-srs-document-fd9ab103b18#_Toc77487651

krazytech

<https://krazytech.com/projects/sample-software-requirements-specificationsrs-report-airline-data-base>

Requirement Engineering Box

[http://isg.inesc-id.pt/REBox/WiegersTemplate@17.aspx?page=4ExternalInterfaceRequirements#:~:text=According%20to%20Richard%20Thayer%20\(2002,communicate%20properly%20with%20external%20components.](http://isg.inesc-id.pt/REBox/WiegersTemplate@17.aspx?page=4ExternalInterfaceRequirements#:~:text=According%20to%20Richard%20Thayer%20(2002,communicate%20properly%20with%20external%20components.)

2. Overall Description

2.1 Product Perspective

This web-based QnAI will store information about:

- Admin Detail:

The system will store information about ID, name, and password. The admin has control access to the user question and the user account. All questions asked will go directly to the admin and will be directly in the process to be displayed and will be filtered so that the questions asked are not the same and repeated and if there is the same question that has been answered then the question will immediately display the answer and will be provided a report for the user if the answer given is not appropriate and the admin directly gives the information to the user to be examined and re-processed at least the report is 10 report and will be given 2x24 hours to correct if there is no response then the answer will be deleted.

- User Detail:

User ID, username, password, the total number of user's questions, the total number of user's answers. user's can ask and answer questions..

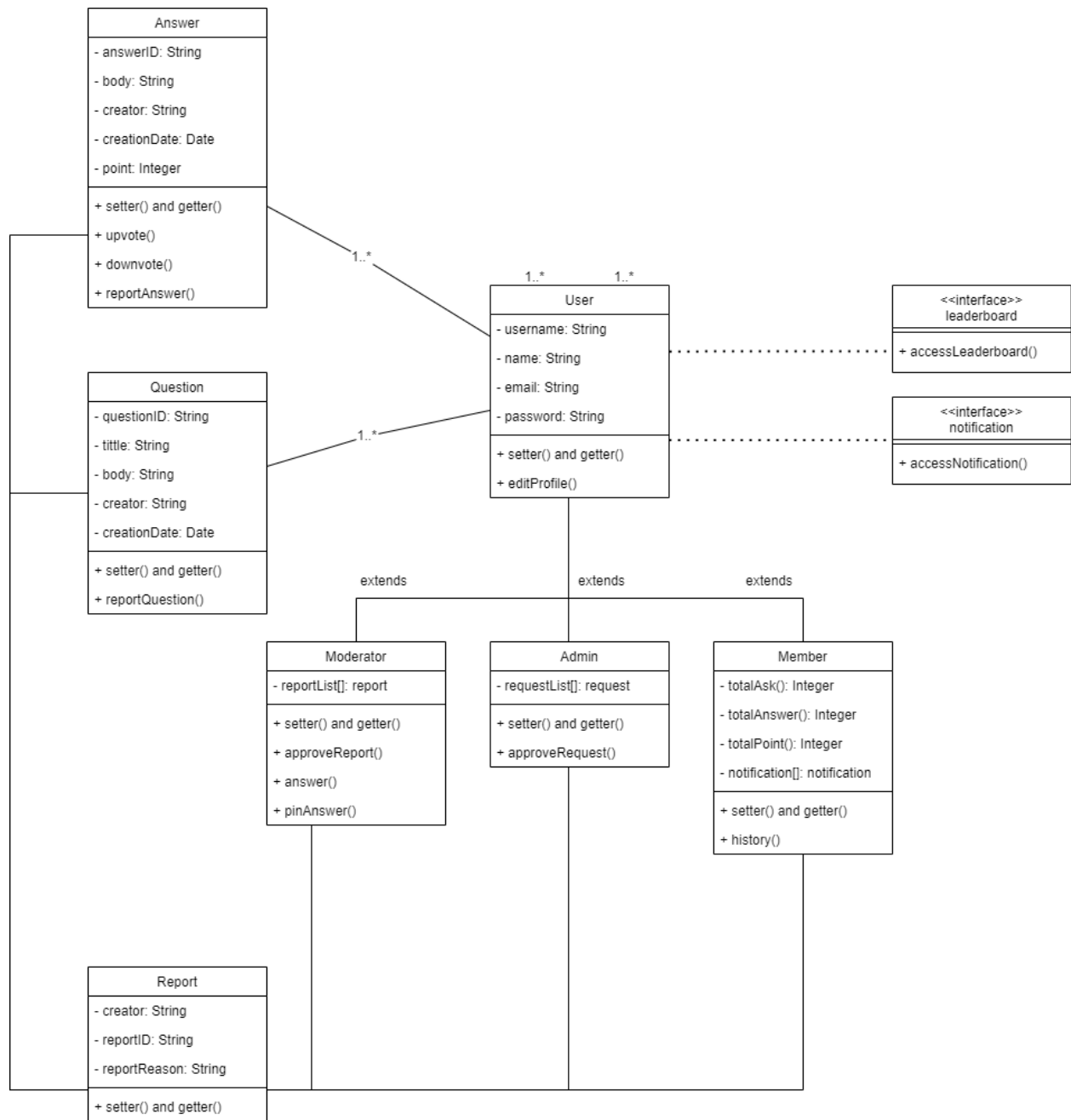
- Comment Detail:

The function of comment is for users to give answers to questions or create a discussion forum so that each of the users (whether the user who asks the question or not) can give each of their solutions.

2.2 Product Function

The ER-D model of QnAI Application:

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Designed to be a forum with the main focus topic is AI, QnAI is specially created to facilitate the learning of Lab AI from Telkom University and AI enthusiasts.

2.3 Class and User Characteristic

Users can provide information related to code, questions, answer questions and respond to comments in the comments field. while the admin serves to fix the system, delete accounts, questions and answers that violate the rules.

Admin features:

- Have access to all of the user's and user's post (including answer and question)
- Delete answers, question, and account of the user that violates the rule.

User features:

- Ask a question
- Answer a question
- delete a post (answer and question) of the user's itself
- participate in leaderboard
- Request to be a moderator

Moderator features:

- Same as user features
- Able to pin a comment
- Able to accept question or answer report

2.4 Operation Environment

We're creating this app with

Operation System : Windows for creating the design, Linux for making the code.
Database : MySQL
UI/UX : Figma, Canva, Photoshop CC 2020, Laravel, Php
Platform : tested on a newest web browser such as Chrome, Edge, and Firefox

2.5 Design Limitation and Implementation

App Limitation:

- A person needs to create an account to ask and answer.
- A person can only sign in with a registered account.
- One email cannot be used to register more than 1 account.
- Users need to be connected to the internet to open the app.
- The App can be only accessed via browser and enter the right address of the app
- User cannot post porn, criminals, or drugs
- The newest version of the web browser is highly recommended.

Developer limitation when creating the app:

- A web hosting service is pricey so that we can't afford to buy it.

2.6 User Documentation

This application has documentation and tutorial documents that can be downloaded in a type of pdf form so users can understand it, to download it this web base has its own wiki with a different domain name "wiki.qnai.com".

2.7 Assumption and Dependency

let assume that a person that has a problem regarding their AI project wants to ask about his code and model, and he choose QnAI as a forum platform to ask it, then:

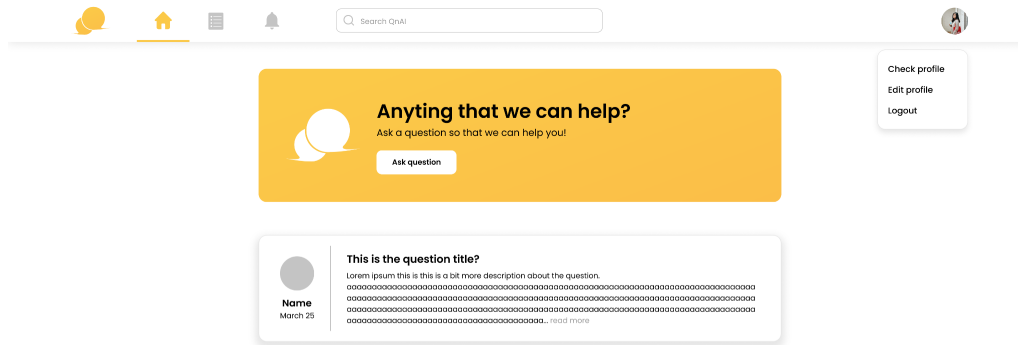
- Create an account in the app, then complete the user profile.
- Ask a question, share pictures, and share a code.
- Wait for someone to answer it, after someone answers it, it will notify the user by the web app or email.
- Send a comment, but got a typo.
- Delete a comment, and re-type.
- Send the comment again and click upvote on another user comment and question

Each of the user activities mentioned above will be recorded in the database.

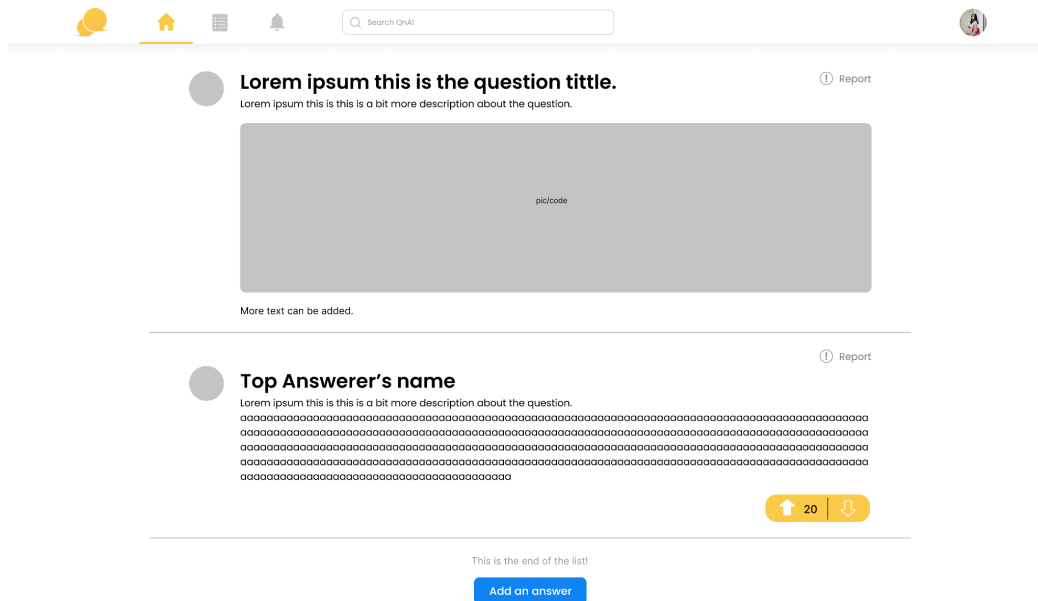
3. External Interface Requirement

3.1 User Interface

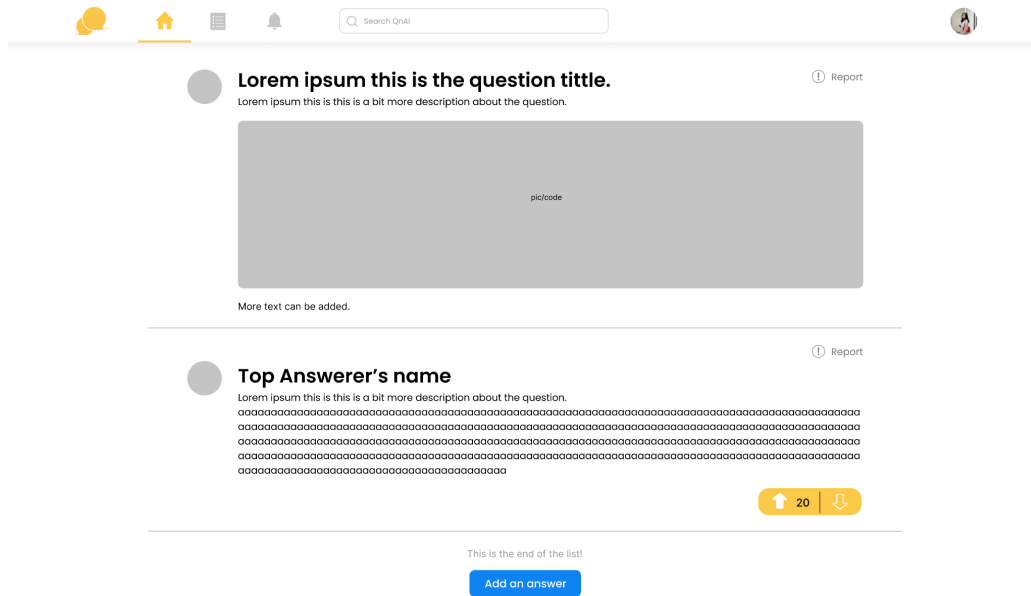
Below are some mockups created to depict the user interface.



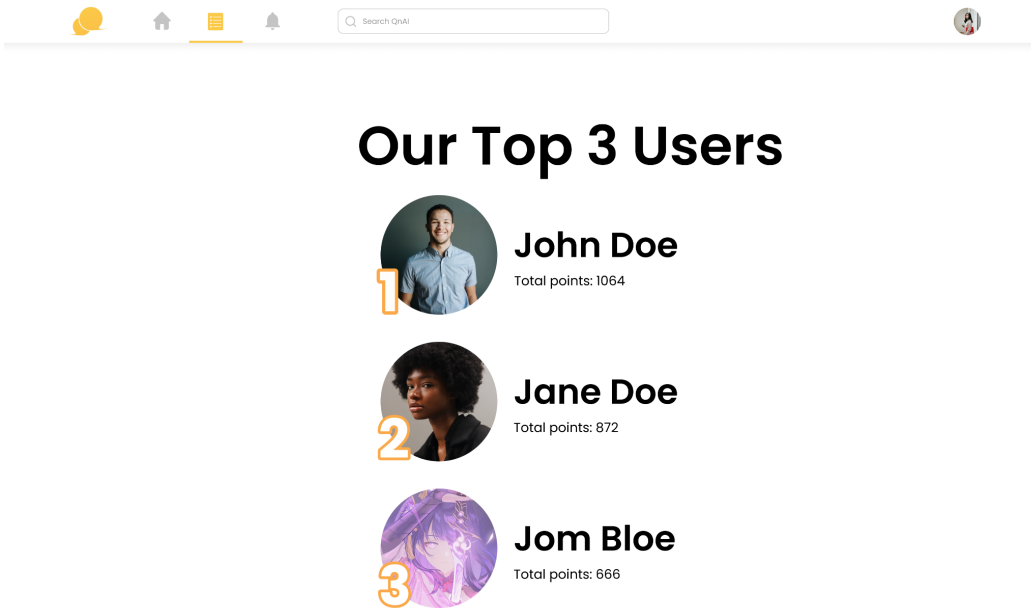
3.1.1 Home page



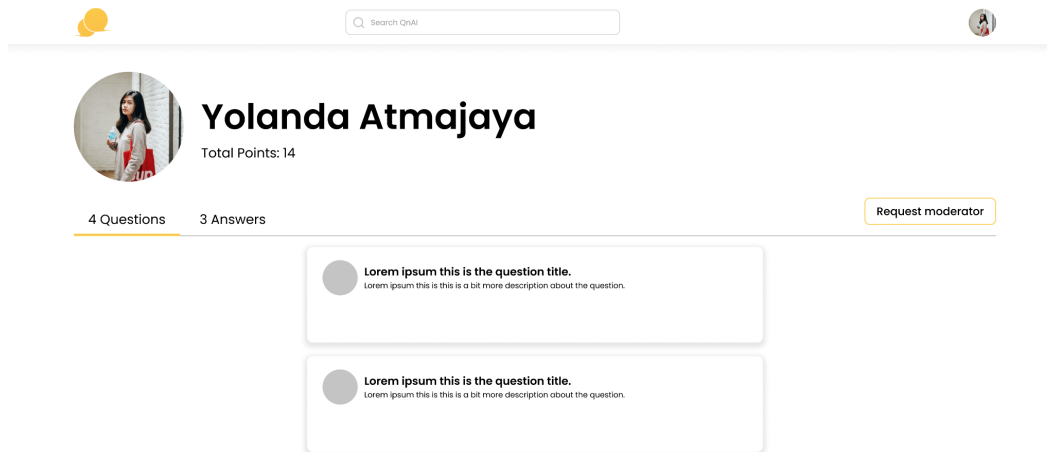
3.1.2 Question-Page



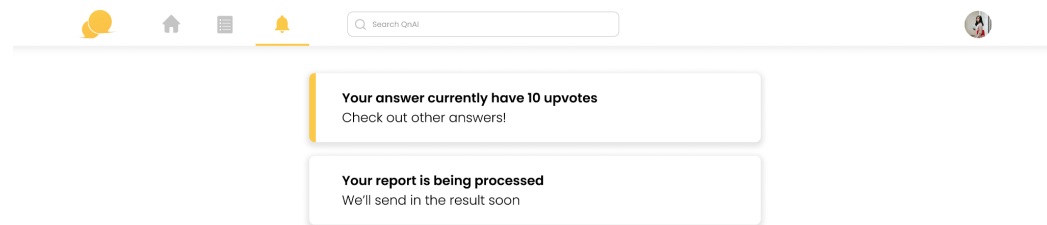
3.1.3 Answering Question-Page



3.1.4 Leaderboard-page



3.1.5 User's profile-page



3.1.6 Notification-page

3.2 Hardware Interface

This application is web based, so it can be accessed from any device with internet connection. But we will focus mainly on PC.

3.3 Software Interface

This software was created with Sublime in Laravel, HTML, and CSS programming language for front end and MySQL and PHP for database. As mentioned in 3.3, this software is web based and can be run in any device with internet connection. Minimal version of browser shall be the newest version of Chrome, Firefox, and Safari.

3.4 Communication Interface

This application supports all newest types of web browsers. We use MySQL to store all user information, including created forums of questions and answers and php as the programming language to connect the web interface to the MySQL database.

4. System Features

4.1 Ask a Question

4.1.1 Description:

This feature is for the user asking a question.

4.1.2 Trigger:

This feature will appear if the user clicks the question box then type something to ask.

4.1.3 Input:

Send text.

4.1.4 Output:

The text will appear to others as a question.

4.1.5 Main Scenario:

4.1.5.1 Precondition: user is in main page.

4.1.5.2 Post Condition: user in question page.

4.1.5.3 Steps:

- click on the question button
- enter the question
- press enter button or click post

4.2 Answer Question

4.2.1 Description:

This feature is for answering questions.

4.2.2 Trigger:

This feature will appear if the user clicks on the answer box in the question page.

4.2.3 Input:

Enter the answer for the question.

4.2.4 Output:

Answer will appear in the answer box

4.2.5 Main Scenario:

4.2.5.1 Precondition: user is in the answer page.

4.2.5.2 Post Condition: user is in the answer page.

4.2.5.3 Steps:

- enter answer on answer box
- press enter or click post

4.3 Upvote and Downvote answer

4.3.1 Description:

This feature is to give upvote or downvote to an answer.

4.3.2 Trigger:

This feature will appear automatically in the question page.

4.3.3 Input:

Click on the upvote or downvote button.

4.3.4 Output:

If click on upvote, the answer vote will get one more point.

4.3.5 Main Scenario:

4.3.5.1 Precondition: user in question page.

4.3.5.2 Post Condition: user in question page.

4.3.5.3 Steps:

- click on upvote or downvote button

4.4 Report

4.4.1 Description:

This feature is for reporting an answer or question if it doesn't relate with Artificial Intelligence or if it contains harmful words.

4.4.2 Trigger:

This feature will appear automatically on the question page.

4.4.3 Input:

Click on the report button, and enter the reason for reporting it.

4.4.4 Output:

Answer or Question has been reported and the message has been sent to the moderator.

4.4.5 Main Scenario:

4.4.5.1 Precondition: user in question page.

4.4.5.2 Post Condition: user in question page.

4.4.5.3 Steps:

- click report button
- enter the reason for reporting it
- press enter or click report button

4.5 Search Bar

4.5.1 Description:

This feature is for searching questions or other users/people.

4.5.2 Trigger:

This feature will appear if the user clicks on the search toggle.

4.5.3 Input:

Click on the search toggle, search what the user needs.

4.5.4 Output:

Search found.

4.5.5 Main Scenario:

4.5.5.1 Precondition: user is in home page.

4.5.5.2 Post Condition: user is in search page.

4.5.5.3 Steps:

- click search toggle
- enter what the user want to search
- press enter

4.6 Timeline

4.6.1 Description:

This feature will display other's status, post, and many more.

4.6.2 **Trigger:**

This feature will appear if the user clicks the timeline icon.

4.6.3 **Input:**

Press the timeline button.

4.6.4 **Output:**

Timeline will appear.

4.6.5 **Main Scenario:**

4.6.5.1 Precondition: user is in main page.

4.6.5.2 Post Condition: user is in timeline page.

4.6.5.3 Steps:

- click at the timeline button
- timeline will appear

4.7 **Notification**

4.7.1 **Description:**

This feature is to notify when there is a notification.

4.7.2 **Trigger:**

This feature will appear if the user presses the notification icon.

4.7.3 **Input:**

Click on the notification button.

4.7.4 **Output:**

Notification will appear.

4.7.5 **Main Scenario:**

4.7.5.1 Precondition: user is in home page.

4.7.5.2 Post Condition: user is in the notification page.

4.7.5.3 Steps:

- click notification button
- notification will appear

4.8 Log in

4.8.1 Description:

This log in feature will appear when a new user opens the application for the first time, this feature is in the login page before the user can access all the features on application.

4.8.2 Trigger:

This feature will automatically appear when a new user logs in for the first time, if the user has logged in, the user does not need to log in every time he logs in application, unless the user intentionally logs out or wants to change accounts.

4.8.3 Input:

Enter username and password.

4.8.4 Output:

After the username and password has been verified by the server, the user will continue to the home page.

4.8.5 Main Scenario:

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4.8.5.1 Precondition: user is in login page.

4.8.5.2 Post Condition: user is in home page.

4.8.5.3 Steps:

- enter username and password
- press enter or login

4.9 Leaderboard

4.9.1 Description:

This feature will display the user who answers and gets many upvotes.

4.9.2 Trigger:

This feature will appear if the user clicks on the leaderboard button.

4.9.3 Input:

Click on leaderboard toggle.

4.9.4 Output:

Leaderboard will appear and display the most 30 users who answer and get many upvotes.

4.9.5 Main Scenario:

4.9.5.1 Precondition: user is in home page.

4.9.5.2 Post Condition: user is in leaderboard page.

4.9.5.3 Steps:

- Press the leaderboard toggle
- Leaderboard will appear

5. Non Functional Requirements

5.1 Quality Attribute

1. **Reliability:** The web application can be used 1x24 hours steadily.

2. **Availability:** As long as there are no electrical constraints, system maintenance, or network interference, the software can be used properly.

3. **Security:** To be able to access the services in this application, users are required to authenticate for the security of user and server data Database. System checks are also carried out periodically, to avoid data theft.

4. **Maintainability:** Periodically check the system in order to avoid data theft, system glitches, and bug-fixing.

5.2 Legal Requirements

5.2.1 Security

- Data from the profile user cannot be seen by anyone.