

## QuizApp

### Functionality specification

**Version: 1.0**

**3.6.2025**


Functionality specification

QuizApp

## Version history

Version	Date	Author	Comment
1.0	6.3.2025	Roko Pejo Bozic	Functional Specification

## Document certification

Name	Role	Company	Date	Signature
Roko Pejo Bozic	Team Leader	ARENDT	3.6.2025	

## Content

Version history.....	2
Document certification.....	2
Introduction.....	4
Scope of the project.....	4
Concepts .....	4
Role description .....	4
Fences .....	4
Assumptions and dependencies .....	4
List of requirements.....	5
Requirements related to functionality.....	5
Creation of a Quiz .....	5
2-4 possible answers per question.....	5
A unique code is generated for each quiz session .....	<b>Error! Bookmark not defined.</b>
Both registered and unregistered (guest) users can join a quiz using the unique code .....	5
Participants select answers and receive points based on correctness and speed .....	5
A leaderboard is shown in real time during the quiz.....	5
After a quiz ends, a leaderboard is displayed with individual and overall performance .....	5
Registered users can view their quiz history and performance summary .....	6
The system should prevent guests from viewing history or summaries after the session ends .....	6
Requirements related to characteristics .....	6

## Introduction

The ARENDT project (QuizApp) is a real-time quiz app similar to Kahoot. It allows registered users to create and host quizzes and lets other users join using a unique game PIN. The application focuses on easy access for unregistered users (guests) and more advanced features for registered users like creating their own quizzes, checking previous quiz history and more

## Scope of the project

The scope will include quiz creation. Only registered users will be allowed to create quizzes. Quiz joining will be allowed by both registered and unregistered users. The final result/leaderboard will also be displayed to both but unregistered users won't be able to see any previous quizzes. User registration/login will be important for the client to view previously played quizzes and also to create quizzes since only registered users can create and view quiz history.

## Concepts

There are four key concepts and those are:

- 1.) Quiz: A time-limited set of questions with 2 – 4 possible answers. For a quiz to be valid there must also be at least 2 questions.
- 2.) Game PIN: A unique code to join a specific quiz session.
- 3.) Registered Users: Users who can log in, create quizzes, view history and also play quizzes.
- 4.) Unregistered Users: Users who can join quizzes but cannot create or save data.

## Role description

The two key roles are:

- 1.) Unregistered users (guests) who can only join games using a unique PIN.
- 2.) Registered users who can create quizzes, host sessions, and view past activity.

## Fences

The constraints of this project are:

1. The app will only support the English language.
2. The app must be visually appealing on both web and mobile browsers.
3. Guests cannot rejoin or review a completed quiz after the session ends.
4. There will be no support for private messaging or chatting between players.
5. A quiz session cannot be resumed once it is marked as finished.

## Assumptions and dependencies

Our assumptions are:

- 1.) Users have access to a modern browser and good internet connection.
- 2.) Participants are expected to join before the quiz officially starts.
- 3.) Quiz creators will manage the distribution of session codes themselves.

## List of requirements

### Requirements related to functionality

#### Creation of a Quiz

The creation of quizzes will be only available to registered user. Unregistered users will not be able to create quizzes they will only be able to join them. When creating a quiz there should be at least 2 questions with a possibility of 2-4 answers per question.

#### 2-4 possible answers per question

Per question there will be only 2 – 4 multiple choice answers. Only one of these answers can be correct. So that means there can never be 2 or more correct answers.

#### Real-time gameplay should be supported: once the quiz starts, questions are delivered to all participants simultaneously

On the creation of a quiz a unique code will be assigned to the created quiz. Registered users will be in charge of distributing this code to the people who they want to play their quiz. Once the registered user starts the quiz everyone who is in the quiz at that time will receive the questions simultaneously.

#### Both registered and unregistered (guest) users can join a quiz using the unique code

While registered users may hold more power both registered users and unregistered users can freely play quizzes as long as they have the correct code to join.

#### Participants select answers and receive points based on correctness and speed

Depending on how fast you answer, the more points you will get. So if you answer before someone else you will receive more points.

#### A leaderboard is shown in real time during the quiz

After every round a leaderboard should be shown to show who is winning and who is losing. This will make our application more competitive and fun to play.

#### After a quiz ends, a leaderboard is displayed with individual and overall performance

Here we will be able to see how everyone did. So, we will be able to see who finished first, how many points they got and etc...

## Registered users can view their quiz history and performance summary

This will only be shown to registered users. They will be able to see previous quizzes they played and a summary of the results.

## The system should prevent guests from viewing history or summaries after the session ends

The system will prevent unregistered users from looking at previous quizzes or summaries. When they try to click on create a quiz or view history they will be redirected to the login page where they can login. So, they will only have access to playing quizzes

## Requirements related to characteristics

The requirements related to characteristics are as follows:

- 1.) Usability: Simple design to avoid confusion, especially for guest users.
- 2.) Responsiveness: Must be visual appealing for both desktop and mobile browsers.
- 3.) Security: User credentials must be stored securely.
- 4.) Accessibility: Visual feedback (colors, progress indicators) must be clear and consistent