

TOOHAK
REQUIREMENTS & DESIGN
COMP1531

TITUS
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1. ELICITATION

Find 2-3 people to interview as target users. Target users are people who currently use a tool like Toohak or intend to. Record their name and email address.

NAME	EMAIL
Brendan Lee	Brendan.lee@gmail.com
Keith Xao	Keith.Xao@hotmail.com

Develop a series of questions (at least 4) to ask these target users to understand what problems they might have with quiz tools that are currently unsolved by Toohak. Give these questions to your target users and record their answers.

1. Do you find Toohak have enough options to satisfy your goals?	
Brendon	Quizzes can do better in terms of having labelled the ranks, being able to play online with random users and having competitive matchmaking in this scenario, have rewards such as profile banners, medals, and badges for achievements. I think there should also be a way to block players and limit the quizzes to certain number of players so bots do not enter.
Keith	I think there should be different age restrictions for the quizzes. For example, a large majority of users are using it for school or teaching purposes, thus it should be a good idea that there are age restrictions for kids, so they don't accidentally play something that's not suitable for them. I think there should also be background music which makes it more engaging.

	<p>Else, I think this program should be something simple and easy to use for all ages. If you look at the demography of who uses Toohak is usually teachers in classroom settings. Teachers usually don't have high computer literacy so having a basic program is sufficient.</p>
<p>2. Do you face any challenges with accessibility and inclusivity when using existing quiz tools?</p>	
Brendon	<p>I think, having a AI voice read out the questions would also be good, as it'll make it more inclusive for players who have reading disadvantages.</p>
Keith	<p>Main challenges I can think of is students who have difficulty to read will be less engaged to the quizzes. So having the ability of an AI read questions before the timer starts would be useful. I also think having a timer that can change would also be useful as some questions may take longer while others take less time to complete.</p>
<p>3. Do you find creating questions have enough options to satisfy your goals?</p>	
Brendon	<p>I think there should be short answer questions, as well. You could use Chat GPT API to see if the answers are correct or, have key words in the response that would make it easier to check if responses are correct or not. Questions should also be able to contain audio or videos. For example, if you are running a music style quiz and a question is what note is being played, the quiz should be able to have audio for that specific question.</p>
Keith	<p>The questions are limited in terms of types, such as fill-in-the-blank type questions.</p>

4. Do you think there should be restrictions on players?

Brendon

Since the game is catered for all age groups, there needs to be some level of moderation. If a player does have a name that is deemed restricted, then Toohak should give the user a random name. Also Player chat should also be monitored for safety.

Keith

I think if there is an age restriction and players who fall under those restrictions, should be restricted on certain actions, such as chatting and selecting player names. Else I feel like having the freedom of it being chaotic makes it much more fun.

2. ANALYSIS & SPECIFICATION – USE CASES

Take the responses from the elicitation step and express these requirements as user stories (at least 3). Document these user stories. For each user story, add user acceptance criteria as notes so that you have a clear definition of when a story has been completed.

1. As a user, I want the ability to be able to improve quizzes by being able to add audio and videos in the questions, so the question is not limited to just text.
 - When creating a quiz, there is add feature.
 - In this add feature you can add pictures, videos, or audio.
 - Video and audio can be downloaded or YouTube links.
2. As a user, I care about the safety of young users playing so I want to have the ability to kick random users who've joined and have restrictions to their chats.
 - Before adding question to the quiz, you can select size of player that can join and age range.
 - If the age range is under 18 then that will cause restricted mode to be turned on automatically.
 - Players will be limited in the ability to select certain usernames and how they chat.
 - If age selected if over 18 then there are no restrictions.
 - Once players are in the lobby and admin sees players who they cannot recognise or is being toxic then they can kick.
3. As a user, I don't always want to be limited to multiple choice type questions, but also have short responses type questions.
 - When admin is creating the quiz question, they will be asked to select either multiple choice, short response, or fill-in-the-blank type question.
 - If they select multiple choice, then user can create a question with a minimum of 2 options and maximum of 4.
 - If they select short response or fill-in-the-blank, then they will have to insert key words or statements they want the correct answer to be.

USE CASE

Use Case title: Player size in quizzes.

Goal in context: When Admin creates a new quiz, they select the maximum amount of player that can join.

Preconditions: Admin must create a valid quiz.

Success End Conditions: If no more then the size selected of players join

Failed End Conditions: if more players join then the size admin selected.

Primary Actor: Admin who created the player join size.

3. VALIDATION

With your completed use case work, reach out to the 2-3 people you interviewed originally and inquire as to the extent to which these use cases would adequately describe the problem they're trying to solve. Ask them for a comment on this and record their comments in the PDF.

Keith	I like the idea of being able to use different types of files in the questions. It gives a lot more variety and hopefully make the quizzes more engaging.
Brandon	The Award system will make players want to play more and having online players compete will make it much more fun as different users can engage.

4. INTERFACE DESIGN

Now that we've established our problem (described as requirements), it's time to think about our solution in terms of what capabilities would be necessary. You will specify these capabilities as HTTP endpoints, similar to what is described in 6.2. There is no minimum or maximum of what is needed - it will depend on what problem you're solving.

Name & Description	HTTP Method	Data Types	Exceptions
/v1/admin/quiz/{quizid}/playerJoinSize	GET	quizId, Token, size,	200: {} 400: if quizId is not valid if size is less then 1 or greater then 100 401: Token not a valid structure 403: Provided token structure is valid but currently not logged in.

5. STATE DIAGRAM

