

# Requirements and Analysis Document for KwizGeeQ

Version: 1.0

2017-03-31

Are Ehnberg, Anton Kimfors, Marcus Lindvörn, Henrik Håkansson

## 1 Introduction

Sometimes it can be hard to remember things, whether you're studying for finals or just learning what different animals' tracks look like. KwizGeeQ (pronounced quiz-geek) is a quiz-app mainly intended to help students with learning or studying subjects of their choice. However, it can be used by anyone needing help to remember things. The user can create new quizzes, then answer the questions in a random sequence. Also, just for fun, some extra functions like a randomly generated Spotify-quiz, the ability to add a GPS location to a question, and some global user statistics will also be available.

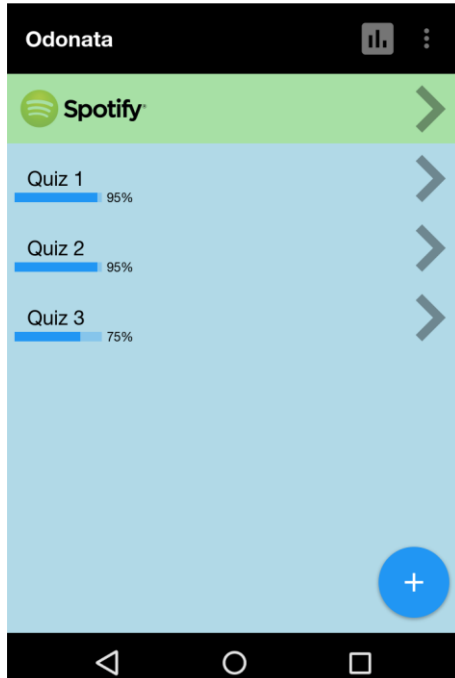
### 1.2 Definitions, acronyms and abbreviations

**Quiz** – A collection of questions.

## 2 Requirements

### 2.1 User interface

The views shown below may change in colour, as well as other small details, but other than that these views shows the design that will be used in the final product.



*Figure 1: Home screen / Quiz view*

This is the main screen, which is first shown when starting the app. Here, all the quizzes are listed with your best result shown beneath the quiz' name.

Tapping on a quiz begins play of the quiz (shown in figure 2).

Holding on a quiz opens a popup with "Edit" (shown in figure 4) and "Delete" options.

Tapping the plus in the bottom right corner creates a new quiz (shown in figure 3).

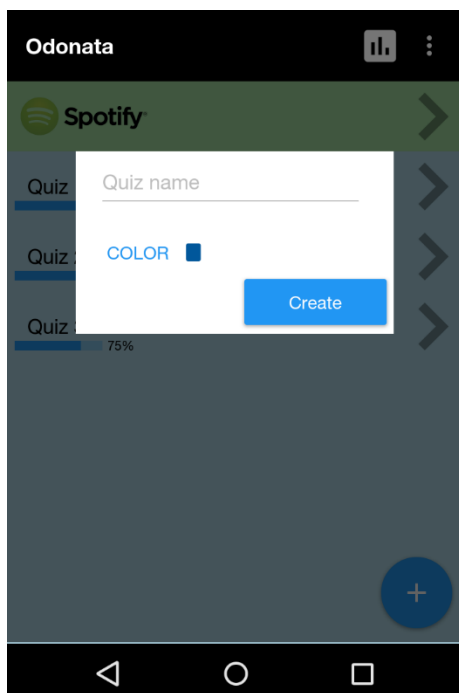
Tapping the statistics icon in top right corner shows statistics screen (shown in figure 6).



*Figure 2: Question view / Playing a quiz*

This is the view of a question and all of the answers, which is shown when starting a quiz.

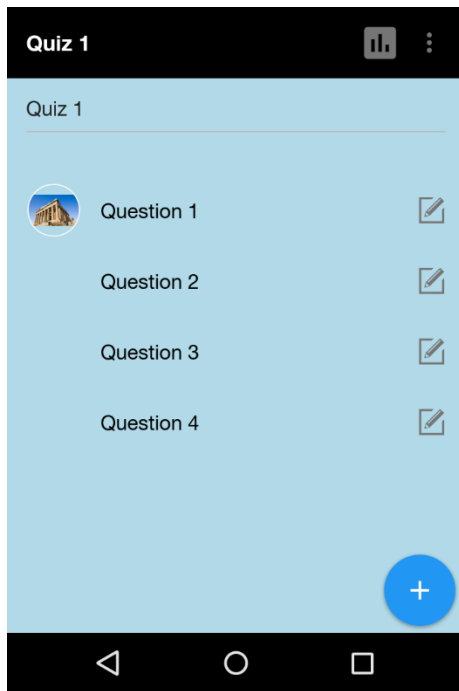
Tapping one of the alternatives takes you to the next question, or if the quiz is done you will be taken to a different screen with your final results, and the option to replay the quiz.



*Figure 3: Creating a quiz #1*

This pop-up is shown when creating a new quiz, here you choose a colour and a name for the quiz.

Tapping "Create" takes you to the view for editing a quiz (shown in figure 4).

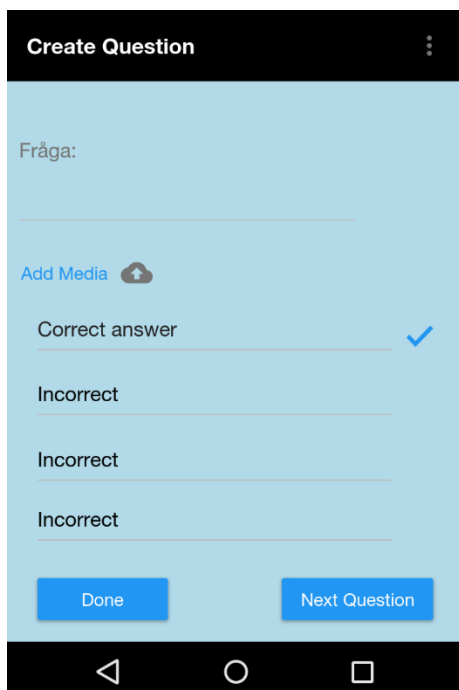


*Figure 4: Creating a quiz #2 / Editing a quiz*

This view is shown when editing a quiz. Here, all the current questions are listed, with attached media shown to the left and a button for editing the question (shown in figure 5) to the right.

Tapping the name will allow you to rename the quiz.

Tapping the plus in the bottom right corner will create a new question (shown in figure 5).



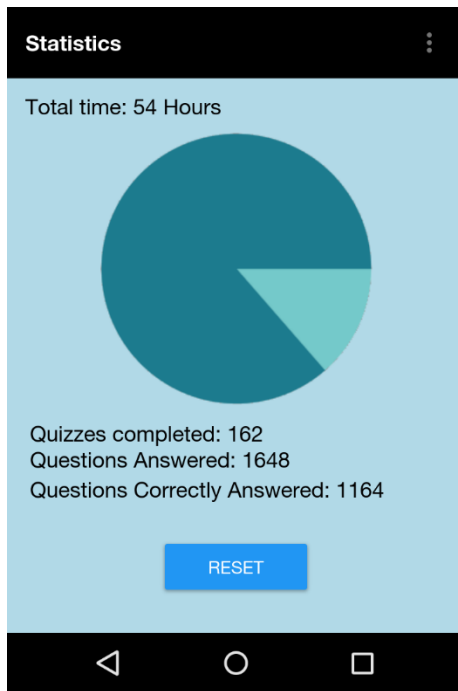
*Figure 5: Creating question / Editing question*

This is the view for creating or editing a question. Here you enter the text for the question, and if you want to you can choose to add media. You can also enter up to four answers, where the answer which will count as correct is indicated by a blue tick, as well as through input hints in the text box.

Tapping "Done" will save the question and move you back to the quiz editing view.

Tapping "Next Question" (or "Add Another Question" if currently editing last question) will move you to the same view for the next question (or add a new question with the same view).

Not shown in this figure is a button next to "Add Media", intended for adding a GPS location to a question.



*Figure 6: Statistics view*

This is the view of global statistics gathered throughout the use of the app. This view may change if more statistics is added at a later point.

## 2.2 Functional requirements

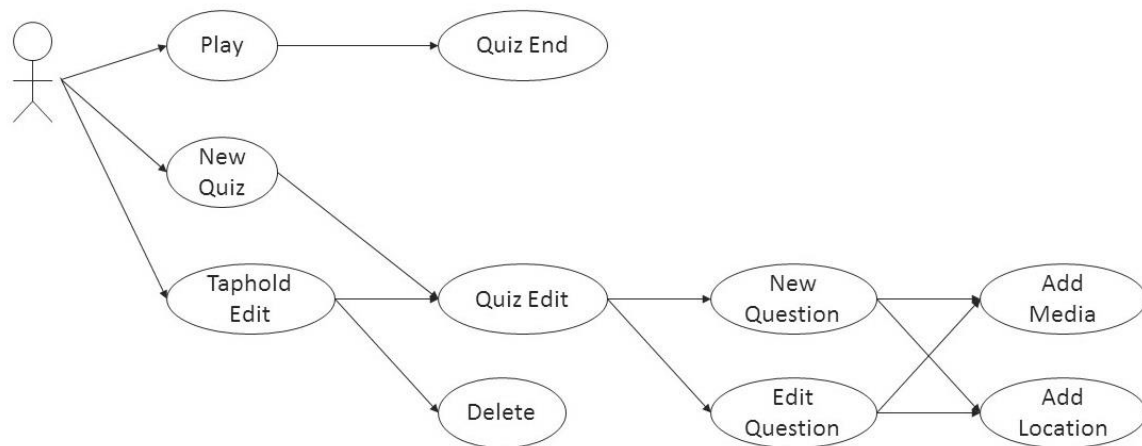
The use cases for the app are as follows:

1. Play *High Priority*
2. New Quiz *High Priority*
3. Quiz Edit *High Priority*
4. New Question *High Priority*
5. Quiz End *Medium Priority*
6. Taphold Edit *Medium Priority*
7. Delete *Medium Priority*
8. Edit Question *Medium Priority*
9. Add Media *Low Priority*
10. Add Location *Low Priority*

## 2.3 Non-functional requirements

The app must be testable, and compatible with all android devices equipped with Android 6.0 or later versions.

### 3 Use cases



#### 3.1 Use case listing

Play		
<b>Summary</b>	The user plays a complete quiz	
<b>Priority</b>	High	
<b>Extends</b>	-	
<b>Includes</b>	Quiz End	
<b>Participators</b>	User	
	Actor	System
1	Choose one quiz on main screen	
2		Show question and 4 possible answers.
3	Chooses answer	
4.1		Answer is correct, highlight the answer
4.2		Answer is wrong, highlight correct answer
5		Short delay
6.1		There are more questions -> step 2
6.2		Quiz is over -> "Quiz End"

Create Quiz		
Summary	User creates new quiz	
Priority	High	
Extends	-	
Includes	Quiz Edit	
Participators	User	
	Actor	Computer
1	Chooses to create new quiz.	
2		A modal window opens up and asks for quiz name and color.
3,1	Cancels creation of quiz.	
4.1		Removes modal window.
3,2	Changes name and and color and clicks "Done".	
4.2		See "Quiz Edit" use case.

Quiz Edit		
Summary	Make changes to selected quiz.	
Priority	High	
Extends	-	
Includes	Edit question	
Participators	User	
	Actor	System
1		User is taken to the "Edit Quiz" view.
2.1	Changes name of the quiz.	
2.2	Changes colour of the quiz.	
2.3	Chooses to create a new question	
3.3		See "New question" case
2.4	Chooses to edit existing question	
3.4		See "Edit question" case

New Question		
Summary	Creates a new question in the quiz.	
Priority	High	
Extends	Quiz Edit	
Includes	Add Media, Add Location	
Participators	User	
	Actor	System
1		Show the "New Question" view.
2	Writes question or answer text.	
3.1	Chooses to add media.	
4.1		See "Add Media" use case.
3.2	Chooses to add location.	
4.2		See "Add Location" use case.
5.1	Chooses to remove previously added media.	
6.1		Removes preview of media and shows button again
5.2	Chooses to add another question.	
6.2		Moves user to another similar view for adding another new question
5.3	Presses "Done".	
6.3		Returns to quiz overview

Quiz End		
Summary	End of completed quiz	
Priority	Medium	
Extends	Play	
Includes	Play	
Participators	User	
	Actor	System
1.1	Choose "Play again"	
2.1		See "Play"
1.2	Choose "Repeat wrong answers"	
9.2		See "Play" (but for only incorrectly answered questions)
8.3	Back to main screen	
9.3		Show main screen

Taphold Edit		
Summary	Allows user to go to the edit menu or to delete quiz	
Priority	Medium	
Extends		
Includes	Quiz Edit, Delete	
Participators	User	
	Actor	System
1	Tap and hold on a quiz in the main page	
2		A popup is shown with the alternatives "Edit Quiz", "Delete Quiz" and "Cancel"
3.1	Chooses to cancel	
4.1		Removes popup
3.2	Chooses to delete quiz	
4.2		See "Delete" page.
3.3	Chooses to edit quiz	
4.3		See "Quiz Edit" page.



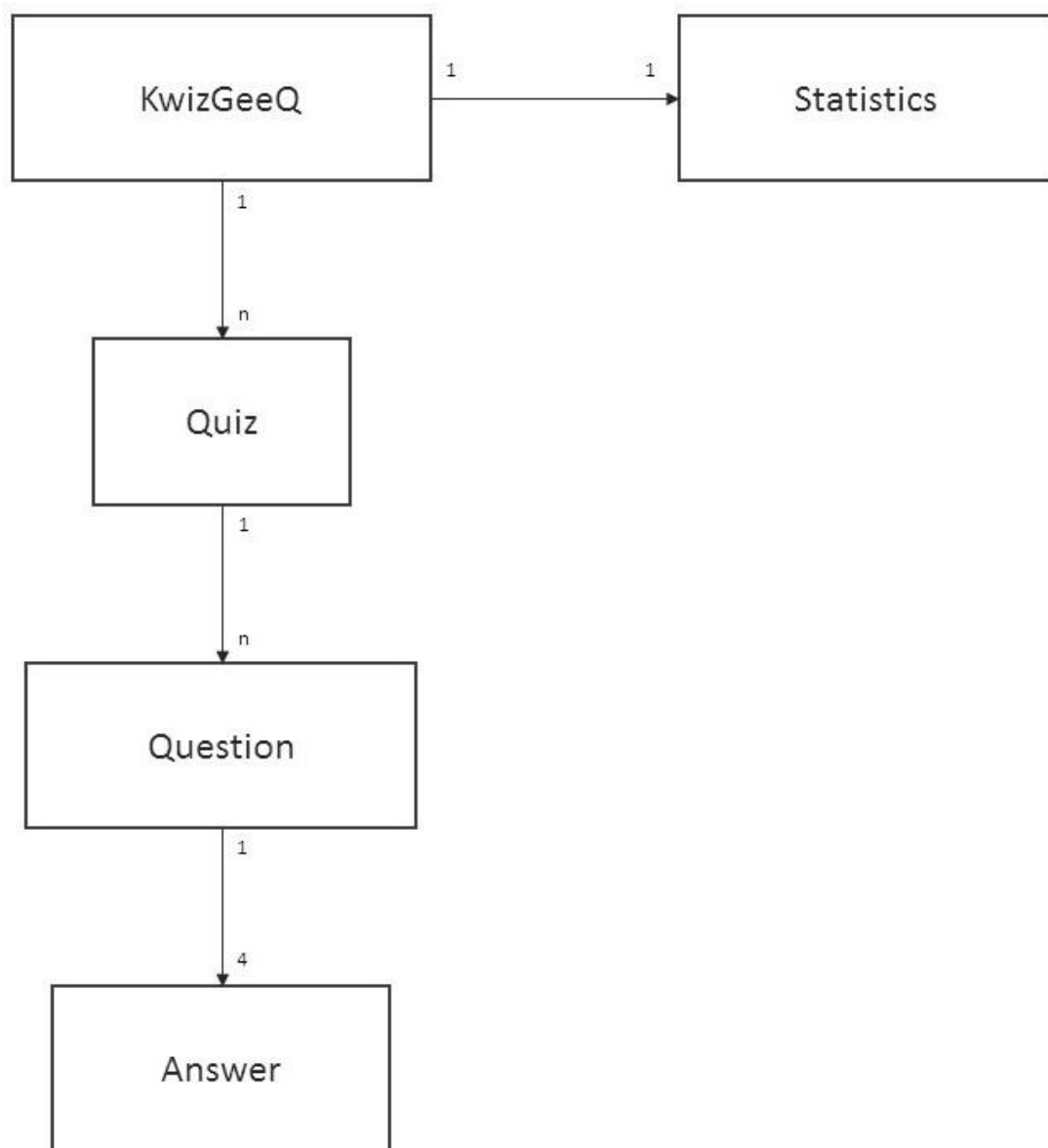
Delete		
Summary	Deletes quiz	
Priority	Medium	
Extends	Taphold edit	
Includes		
Participators	User	
	Actor	System
1		A popup is shown that asks if user really wants to delete and gives the user two choices, "Delete" and "Cancel".
2.1	Chooses to cancel	
3.1		Takes user back to main page.
2.2	Chooses to delete quiz	
3.2		The specific quiz is deleted and user is taken back to the main page.

Edit Question		
Summary	The user edits a question in the quiz.	
Priority	Medium	
Extends	Quiz Edit	
Includes	Add Media	
Participators	User	
	Actor	System
1		Shows "Edit Question" view.
2	Changes the question text.	
3.1	Chooses to add media.	
4.1		See "Add Media" use case.
3.2	Chooses to add location.	
4.2		See "Add Location" use case.
5.1	Chooses to remove previously added media.	
6.1		Removes preview of media and shows option to "Add Media" again.
5.2.1 (If user is editing last question)	Presses "Done".	
6.2.1		Returns to quiz overview
5.2.2 (If user is not editing last question)	Chooses to add another question.	
6.2.2		Moves user to another similar view for adding another new question
	Chooses to edit next question.	
		Moves user to next question for editing

Add Media		
Summary	User adds some form of media to something.	
Priority	Low	
Extends	New Question, Edit Question	
Includes	-	
Participators	User	
	Actor	System
1		Shows selection screen with Video, Image or Sound.
2.1	Selects Video.	
3.1		Opens selection screen with Camera or Gallery.
4.1	Selects camera or gallery and either chooses media in gallery or films with camera.	
2.2	Selects Image.	
3.2		Opens selection screen with Camera or Gallery.
4.2	Selects camera or gallery and either chooses media in gallery or takes picture with camera.	
2.3	Selects Sound.	
3.3		Opens selection screen with Recorder or the users preferred sound file explorer.
4.3	Selects recorder or file explorer and either chooses media in explorer or records a soundfile.	
5		Shows preview of media and adds option to remove this media.

Add Location		
Summary	User adds GPS location to a question	
Priority	Low	
Extends	New Question, Edit Question	
Includes	-	
Participators	User	
	Actor	System
1		Opens Google Maps-plugin.
2	Types in address or picks location on map.	
3		Shows preview of the selected location.
4	Clicks "Done".	
5		Returns user to previous view.

#### 4 Domain model



##### 4.1 Class responsibilities

KwizGeeQ handles the main app functionality, meaning it controls what the other classes do. Statistics merely handles the global statistics for the user. Quiz handles name of the quiz, color, and a list of questions. Question has a text, optional media, and a list of four answers. Answer simply handles a text or an image.