



Zeeguu Requirements Document

Version 1.1

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1 Introduction

Zeeguu is an innovative new tool for learning languages. By integrating multiple translating software, such as Google Translate and Microsoft Translator, Zeeguu allows its users to read articles with real time translation at their finger tips and practice their vocabulary with interactive exercises. Right now, Zeeguu supports five different languages to learn (English, Dutch, German, Spanish and French) and three base languages (English, Dutch and Chinese).

Right now, the interaction in Zeeguu is still rather simple. Anyone, who wishes to use it, simply signs up with an access key and inputs some basic information (your name, email address, password, which language you wish to learn and what your base language is). Once the account is created, the user can choose to read articles, practise their vocabulary or look at the words they have learned.

Our project is to expand Zeeguu to allow teachers to supervise their students as they learning using it. We would allow teachers to have their separate accounts, be able to invite students into 'classes' and oversee their progress with an intuitive visual interface. Apart from these basic requirements, we can expect to integrate other features that we will find out about in the near future as well.

2 Requirements Framework

We have 4 types of requirements for the customer that can be categorised. These types are given in the order of descending priority. Within each type the order is irrelevant.

1. Critical functional requirements : These are absolutely essential features of the system. We give these features top priority.
2. Important functional requirements : We can ship without these features in the worst case scenario. They will really help the product and so will ideally be completed.
3. Useful functional requirements : We can only hope that these features can make it to the customer given the time we have. Shipping without them is acceptable.
4. Non-functional requirements : We strive for these using the time, money, ability and number of workers we have. They are aspects that can be used to judge the product.

3 Critical Functional Requirements

1. Teachers are able to create classes which hold students.

- Teachers have real-world classes and they want to register this with the system.
- 2. Teachers are able to see a list of the classes they teach.
 - Teachers may teach several classes. When they wish to interact with their classes on their dashboard, they should be able to select which one to interact with.
 - They may not see a class they did not explicitly create.
- 3. Teachers are able to see a list of students within a class they teach.
 - When the teacher wishes to see statistics for example, about a student in one of their classes, the teacher should be able to select this student from a list.
 - A student may belong to several classes.
- 4. Teachers are able to add students to the class by invite code.
 - For a class, the teacher creates the invite code themselves. When they enter their preferred invite code, it's the system that then checks whether this is a unique code identifying their class.
 - The codes should not be long. We will decide how long when more implementation information is known.
- 5. The teacher may view statistics about a class they created.
 - These statistics will inform the teacher about the class. The specific statistics will be decided and clarified by Paz Rodriguez.
- 6. Teachers are able to see the time students spent on a certain activity.
 - Teachers want to see how much time a student has spent reading a particular article.
 - Teachers want to see how much time a student spent practising vocabulary.
- 7. The system understands what weak words are.
 - Weak words are words that either a student, class or multiple classes have frequently failed to understand.
 - Therefore there will be three types of weak words.
- 8. Teachers may see what words are weak for a student.
 - Such a student belongs to one of their classes.
- 9. Teachers may see what words are weak for a class.
 - Such a class must be taught by the interested teacher.
- 10. Teachers may see what words are weak for multiple classes.
 - All the classes must be taught by the interested teacher.
- 11. Teachers are able to select a source.
 - Different sources which provide reading material are available. The teacher should be able to assign a source to a class where the students can select an article from.
- 12. Teachers are able to copy and paste an article and publish it.
 - The sources in Zeeguu are limited. If a teacher wishes to add an article not from the available list of articles then they may.

4 Important Functional Requirements

1. A teacher can see statistics visually.
 - These are the statistics describing a class, the time a student spends on an activity, and weak words for a student, class and multiple classes.

5 Useful Functional Requirements

1. Teachers are able to see which words no one understood.
 - There could be words that almost no one understood in which case the students click on them. The teachers will be able to see which are these words.
2. Teachers can give names to classes.
 - Just as in real life schools there are classrooms, in ZD teachers are going to be able to have separate classes for students and be able to name those classes.
3. Teachers can see what everybody understood
 - A list of the words that every student knew, i.e no one clicked on for translation, is going to appear if the teacher is going to choose this option.
4. Teachers are able to see charts on the exercises.
 - Based on the data that is gathered, teachers will also be able to see the performance of the students on the exercises they solve.
5. Teachers are able to see which words everyone knows.
 - A list of the words that every student knew, i.e no one clicked on for translation, is going to appear if the teacher is going to choose this option.

6 Non-functional Requirements

6.1 User interface

1. Using the UI should instantly feel comfortable for the teachers when using for the first time.
2. The navigation of the UI should be immediately recognised when the teacher thinks that they want to do something.

6.2 Performance

1. Teachers should not have negative thoughts for how long it takes them to create a class.
2. Teachers should not have negative thoughts for how long it takes the statistics to be generated for them.

6.3 Security

1. Teachers only have access to data of classes they teach.
2. We must only collect a small amount of personal information regarding a student. For example, just their email address.

7 Won't Do

1. Making a system which sends articles to students in a class.
2. Allowing teachers to give their own typed definitions for words clicked in articles.
3. When making the statistics, categorising different words as verbs, nouns and prepositions for example.
4. Providing a way for a student to change class through the ZD.
5. Giving a student the ability to see other students in their class. This is regarding the reuse of this dashboard for students.

8 Implementation Details

- Use Python as programming language.
- Use flask as model for application.

9 Open Questions

1. What does class mean? It could be the name of the class and the group of people or a year's work.
2. Should a teacher have the ability to delete a class?
3. What specific data is recorded in the database? (Needed to be more specific about the visualisations of data)
4. Could there be more than one teacher per class?
5. We mentioned in the second meeting that a student should be told how their information is being used. Is this for us to implement?

10 Meeting Log

10.1 23/02/18 at 6pm

This was the first meeting with the customer. We therefore were introduced to the project and what they want. In introducing the product, we talked about the target audience and the needs of the target audience. To summarise this, we can say that the ZD is for allowing a teacher to learn about their classrooms. We talked about the current state of the Zeeguu platform and what kind of information would allow a teacher to deepen their knowledge on their classes. A large question to be answered by the ZD for a teacher is identifying the words that a problematic for their classrooms.

10.2 02/03/18 at 3pm

In this meeting we clarified some requirements that were too vague. These were the invite codes for classes and the definition of a class. We decided for the invite codes that we may choose any way for this. The two possibilities we discussed were using automatic generation versus allowing the teachers to specify their own codes. In the latter option, the system would check whether the teacher's code is unique for that class. The customer had preference towards this option. For making a class, we were unable to decide what exactly defines a class. This will therefore be continued in the next meeting.

We had several new critical requirements defined too. These are allowing the teacher to see a list of their classes, allowing the teacher to see a list of students in each of these classes and allowing the teacher to copy and paste their own articles for their students.

In addition, we agreed that a student cannot be moved to another class via the ZD. We may want to allow a teacher to delete classes. It was clarified that a teacher may only be allowed to see their own classes. A student may belong to several classes. We mentioned the idea that a student does not need the ability to see who their class mates are. Finally, a student should be presented with a message regarding how their information will be used upon using their account for the first time.

11 Change Log

Created requirements document on the 27th at 5pm.

When	Which Section	What
Feb 27th, 15 :30 - 18 :00	The document	Started the requirement document.
Mar 2nd, 13 :30 - 14 :00	Requirements Framework	Created this section.
Mar 12th, 18 :00 - 21 :30	Front Page	Added Carlos's second name.
Mar 12th, 18 :00 - 21 :30	Requirements Framework	Clarified some more the structure.
Mar 12th, 18 :00 - 21 :30	Critical Functional Requirements	Simplified, improved and added a new requirement about teachers copying and pasting their own articles.
Mar 12th, 18 :00 - 21 :30	Important Functional Requirements	Improved.
Mar 12th, 18 :00 - 21 :30	Useful Functional Requirements	Improved
Mar 12th, 18 :00 - 21 :30	Non-Functional Requirements	The UI and performance requirements are much more specific now. There is now a new security requirement.
Mar 12th, 18 :00 - 21 :30	Won't Do	We added moving students to different classes and the visibility of other students to students will not be done. The part about categorising words has been improved.
Mar 12th, 18 :00 - 21 :30	Implementation details	The SCRUM point was removed.
Mar 12th, 18 :00 - 21 :30	Open Questions	The open questions now reflect our questions after the second customer meeting.
Mar 12th, 18 :00 - 21 :30	Meeting Log	Both meetings have now been summarised.