Zeeguu Requirements Document

Version 1.1

Authors :
Oliver Holder
Christian Grier Mulvenna
Henry Salas
Tai-Ting Chen
Evi Xhelo
Ai Deng
Jakob Vokac

Clients :
Mircea Lungu
Carlos Paz Rodriguez

Supervisor :
Lars Holdijk

University of Groningen
February 2018

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 the Zeeguu Dashboard (ZD) 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.

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.

2. Teachers are able to see a list of the classes that they teach and not other ones.

3. Teachers can delete a class of their own.

4. Teachers can edit the details of a class of their own.

5. For each classroom, teachers are able to see the list of students who attend the class and some general activity overview of the classroom. The (general) overview about a classroom's activity that a teacher will be able to see includes :
   — A summary of how much time students spent on reading the articles.
   — A summary of how much time students spent on exercising.
   — A summary of the translated words based on a date filter, i.e. being able to see the words that were translated by students from a certain date to another date.

6. Teachers are able to see general information about that specific student. The list of general information of a student that a teacher will be able to see includes :
   — A list of the text(s) that the student has read *and* how much time the student spent on it.
   — A list of the exercises that the student has completed and how much time the student spent on it.
   — A list of the word(s) that the student has translated.

7. The students can request to join in a classroom. Provided that they have the right invite code, the teacher will accept the request.

4   Important Functional Requirements

1. A teacher can name a class.

2. A teacher can see statistics about the students' reading time and the exercises the have done.

3. A teacher has two ways of making available texts for students to read :
   — They copy and paste their own text.
   — They choose a source via an URL link.

4. Apply filtering by date to the words translated by a student.

5   Useful Functional Requirements

1. Teachers will be able to see the weak words in the range of all classes, i.e. weak words that are common for all the classes.

2. Students can apply filters depending on their preferences : e.g. a student may not prefer to read about disturbing news.

3. Have a `last activity` space to present the last thing a student worked on.

6   Non-functional Requirements

6.1   User interface

1. The UI should be relatively simple to use and easy to grasp for new teachers.

6.2   General

1. The invite code that the teacher creates is a unique, character (and possibly number) based text created by the teacher(s) themselves.

6.3   Performance

1. The system should work relatively fast and efficiently, i.e :
   — Creation of a class should not take too long.
   — Generation of statistics should not take too long.

6.4   Security

1. We must only collect a small amount of personal information regarding a student. For example, just their email address.

7   Won't Do

1. Allowing teachers to give their own typed definitions for words clicked in articles.

2. When making the statistics, categorising different words as verbs, nouns and prepositions for example.

3. Providing a way for a student to change class through the ZD.

4. 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.
— Use HTML and CSS for designing the website and the webpages.

9   Open Questions

1. What specific data is recorded in the database ? (Needed to be more specific about the visualisations of data)

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.

10.3   16/03/18 at 3pm

During this meeting we got introduced more thoroughly to the general idea of how the teachers would like to have the website ; most importantly we were told about what we had to do for the upcoming sprint, March 27th, i.e. :
— be able to log in as a teacher
— have a working dashboard with a teacher's classes and a button that creates a new class
— be able to click on a class and have its students' names appear
— click on a student name and have the recent activity w.r.t the words that the student has translated appear

In this meeting, we also explained our team's current 'division'. Since at the time of the meeting we had yet to begin working with our main focus on the dashboard, we regarded it important that we were divided into two groups that would separately deal with the front-end and the back-end applications. This is, of course, temporary as eventually we will transcend into other phases which will require new/different positions and exchange of roles is always a possibility.

Another important matter of the meeting was distinguishing the MVP(Minimal Viable Product) that we will have to prepare by the end of the first block, which is a working Zeeguu Dashboard.

Finally, Mircea also invited us to work near his office on Mondays so that he can help us and guide us in the right direction.

10.4   28/03/18 at 2pm

The meeting started with our team presenting to the clients what we had done thus far in the website. The website was well received by both of our clients and they also provided us with more insight as to what they would prefer now that the details were more concrete. More specifically :
— They wanted the names of the students in a class to be slightly bigger so that they would get most of the focus.
— They suggested that in order to view the detail for a single student, we made their names clickable instead of having a separate button for it.
— Overall, w.r.t to the appearance, they suggested that we used colours that would not drive the attention away from the information that the website should present, something like mild colours, pastel ones or perhaps shades of grey and blue.
— They suggested we separated the `create class` button from the other classes ; have a simple design for it.
— They also provided a suggestion about the progress bar in the student activity.

We also talked about what we would have to do for the upcoming sprint. There are going to be some new features added to the classes such as the possibility to edit one and

also remove it ; for now the requirement specifies that only empty classes can be deleted. There are also web unit tests that need to be developed as well as the integration with Travis.

In the end of the meeting, we placed the new tasks for the upcoming sprint in our Scrum board and created groups within the team to handle each of them.

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.