

NORTHERN ARIZONA UNIVERSITY



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GramBeast

https://github.com/louiemontes/CS386_GramBeast

D2.1 - Vision

CS386

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Professor Marco Gerosa

GramBeast Vision

1. Introduction

The ability to retain long term memory within foreign languages consists of studying and speaking the words out loud. Many students may struggle in finding the motivation to constantly study and practice speaking in a foreign language that they are studying. This can not only affect your grade in a course if you are studying at a university, but it can also render you from your full capability of learning that foreign language as a struggler. Both students and Professors are eager to find new ways to engage in and outside of a classroom to better the learning experience. Professors seem eager to have a system where they could be included to see the given work of students' habits, furthering their range to be able to teach accordingly, and provide extra credit incentives.

2. Positioning

2.1 Problem Statement

The problem of sticking to consistent practice and lack of self-discipline in learning a new language affects students trying to become a fluent speaker. This impacts their ability to keep up in week to week lessons since languages consist of vast information and getting left behind only piles up the errors. A successful solution would be a system that incorporates natural language processing for language practice and a visual reward system for accomplished daily study habits.

2.2 Product Position Statement

GramBeast is specifically for college students taking a foreign language class who find trouble with daily study habits. Unlike expensive sets of foreign language tools, we plan to include the option for a proactive instructor to update specific weekly practice sets that students can use and attempt at their own will. Our product is based on a visual reward system to give students an incentive to keep up with daily practice that takes the form as petkeeping. From multiple interviews with language professors at NAU, all of the seven specifically professors interviewed we're more than happy to include an extra credit incentive to their students if they could keep a pet alive by the end of the semester of their target language.

3. Stakeholder Descriptions

3.1 Stakeholder Summary

Our stakeholders will consist of University students and University instructors, as they will be the main proprietor and user of our software. The University student will be using our software for their studies, along with any bugs they may find they can report it immediately so we can address the issue, and we can reward bug finders with cosmetic additions to their pets or even automated pet feeding for a very short while for the really helpful bug reporters. Meanwhile, the University instructors will be able to market the application as an extra means for the students to learn the language, by either suggesting its use or offering extra credit in return if they keep their pet alive.

3.2 User Environment

For this software most of the tasks are done by only one user. However, in future feature implementation the opportunity of there being multiplayer allowing users to connect and do certain features together will exist. For the user's task cycle the user would need to login daily or bi-daily in order to take care their pet by 'feeding' it which is performing various challenges that on average will take the user 5-10 minutes depending on how well they perform. Our target platform for our software would be a web application, allowing users of different operating systems to use our software. No other software will be needed for the user to use the software.

4. Product Overview

4.1 Needs and Features

A minimum viable product we want to make is a simple to use multiplayer platform that involves profiles, assigned virtual pets, and the buttons and text boxes to feed them daily or bi-daily with correct grammar and vocabulary answers to questions around learning a user's sought after language. Our beta version will include only Spanish towards the end of the Spring 2017 semester. There are a lot of additional features we are striving to implement, however. The top priority in feature addition is an intuitive user interface to our platform where people can understand on their own without need of any tutorial or long descriptions and began immediately taking care of their pet through solving language

learning questions in as little as two minutes to set up an account and begin feeding. We plan to get that done by the end of June 2017.

The next feature would be displaying a detailed scoreboard of intriguing game statistics such as: average time spent feeding a day for other profiles, average virtual life spans of others' pets, how many pets a user's account has let die, the oldest pet alive, etc. Users can expect an interesting scoreboard by the end of the 2017 Summer. Thirdly, we will strive for better pet models and even include decent eating, dying, and emotion espousing animations for the virtual pets. Animations and artwork can be very harder to determine the scope of difficulty to produce but we see as a realistic aim for release to be sometime before Christmas of 2017. The fourth feature is adding a password protected game room system where an entire class can enroll in a room and a teacher may input questions his or herself, and we can implement this before Summer of 2018.

The biggest feature to add after all those others would then be Player versus Player pet battles, or otherwise real time quiz competitions resulting in winning pets being fed or perhaps eating the losers' pets, and this might take until 2019 so that is probably the earliest that amazing feature can be expected. Lastly, periodic language additions can happen regularly and Arabic is our planned second language after Spanish and consequently ensure we have a reliable system for handling both right to left and left to right based languages... Arabic can be implemented possibly before Summer of 2017 and additional languages can be expected in between a couple major feature releases and after.

5. Other Product Requirements

All of these upcoming requirements are to be expected in our initial release, or towards the end of the 2017 Spring semester. Our top priority for our product to work at its most fundamental level is to build a reliable way for players to access pets from a database responding to a website we will maintain and keep our backend timers working correctly so pets neither starve or stay fed without taking into account their user's activity or lack thereof. We risk the whole system not being enjoyable for many if that many cannot trust their activity to actually keep their pet alive or at least accurately represent their lack of activity in the form of dead virtual pets. Part of our minimum viable product is also a simple forum where users can chat or ask other users for help should they find themselves needing any. While we see PvP as a future goal, player interaction and building a community can be in part fulfilled through a form... without which users may feel themselves completely isolated and somewhat lose interest when the fun of social online interaction has not been allowed. While we see the most important feature to add as quickly as possible is an intuitive UI ...for our initial release: distinct buttons, text fields, and a written tutorial with screenshots is enough to get an early fan base started on maintaining their pets and learning their sought after languages. Artwork that may be as simple

as just three images representing living, eating, and dead states of the virtual pets is enough for an initial release, so that this platform's convention of pet maintenance can be represented at least at a most basic level. Finally, we do need to have accurate grammar and vocabulary questions of at least Spanish in our initial release, otherwise our credibility as a unique language learning solution could be put under scrutiny for poor mastery of the languages we are offering to help teach.

Group Participation

Julian Shak: Introduction

Jacob Serafin: Positioning, Important Features: Slack Channel Input

Kalen Wood-Wardlow: Stakeholder Descriptions, User Environment

Luis Montes: Product Overview and Other Product Requirements