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College of Computing

Computer Science Department

CS3141 Team Software Project

Spring 2022

**Team Software Project Proposal**

Section: R01

Team #: 6

| Roll # | Student Name | Position |
| --- | --- | --- |
| 26 | Matthew Penoyar | Scrum Master |
| 27 | Annika Price | Developer |
| 25 | Matthew Pelukas | Developer |
| 28 | Maxim Reuchlein | Developer |

Project name/title: **Quizzler**

Instructor name: Serein AL-Ratrout

* Project introduction and description:

Our purpose for this project is to provide a practical study tool for students to solidify their understanding of concepts through repeated independent practice outside the classroom. We will allow end users to employ various memorization techniques including repetition, enjoyable minigames (which motivate students to enhance their learning), and recollection of key terms with digital flashcards (a card containing a term on one side and its definition on the other, rotated either by timer or user interaction) to help students further understand the relevant course material.

* Problem statement

The software we are attempting to create is an overarching application that has multiple subprograms in the form of different “lessons” or “minigames.” These lessons will pull from a file holding questions and answers fitting into categories defined by our application. We are creating this software to provide students with a means of memorizing and practicing topics, terms, and concepts in a more strategic way than simply rereading past notes and lecture slides so that they can more effectively remember material[1].

The problem is a lack of software designed to learn terms that do not require creating an account or paying money. The purpose of this project is to provide a more simplistic version of existing applications that is easier to use and does not require unnecessary and tedious additions like accounts and monetary exchanges. Our goal is to make an application that does not require the release of information such as name and email. This matters to people concerned about privacy and to people who feel strongly about ease of access without the need for excessive and intrusive features.

* Proposed solution:

Our proposed solution to the above problem statement is to generate free, accessible studying software for students to enhance their learning in their courses without creating an account or paying money. We will accomplish this by creating software that encourages students to practice concepts they have learned in the classroom utilizing repetition, practice, and minigames.

* Tools:

For programming, we will be using Eclipse/IntelliJ (or any working Java IDE that doesn’t suck). Since we are using Java and we want to make a software application, we will be writing it using Swing and AWT (if necessary). We will need either GitHub or Atlassian Source Tree for version control, we will need to use discord and email for effective communication. We will need to use computers (hardware) to write code. Additionally, we will need the use of MySQL to create a database of the questions and answers.

* Constraints and challenges:

1. Our group has varying levels of technical expertise in computer science as we have not all taken the same coursework. For instance, this project may require implementing SQL databases, where some of us have taken CS3425: Introduction to Database Systems while others have not.

2. Communication may arise as an issue as we all have strongly varying schedules and use different applications as our main means of communication. We all check our emails daily but that may not work when on a tight schedule requiring instant communication.

3. With no set “it works or it doesn’t” end goal of the application and the nature of adding multiple sub-modules we may run into the issue of scope creep where we may keep adding on too many features and bloat the original scope to the point where it becomes unattainable in the original timeframe.

4. There are four of us in this group with conflicting schedules and extracurricular activities, resulting in a lack of time.

* The expertise of the Team Members

We all have experience both in Java, and Java visual programming. This project is also of equal interest to all team members mainly because we all care about our grades, but also because we would all benefit from an easy to use and highly accessible study tool.

* References

# References

| [1] | Martinovich, Milenko. “Studying More Strategically Equals Improved Exam Scores.” *Stanford News*, Stanford University, 5 May 2017, https://news.stanford.edu/2017/05/08/studying-strategically-equals-improved-exam-scores/. |
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