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Dont Remember —— An English Vocabulary Learning Software

Abstract

English as basic language for most of people in working and life. Each day, more than millions of people are studying it. A key criteria to measure whether your English better or not is vocabulary. However, lots of people don't get methods to remember words but just recite hidebound. Therefore, I try to create a software to help people get better way to learn vocabulary. Dont Remember is a software that helps people to remember English words. It based on our memory line(Ebbinghaus Forgetting Curve) and try to know user's vocabulary learning habits, then make a scientific plan for user to memorize English easily.

Author

Name: Zitao Wang

Student number: 47866948

Functionality

this software should contain the following functions:

- User registration and login/logout.
- User profile management, including studying target, current learning plan and vocabulary you have mastered.
- Invite friends or other users to study together.
- based user's recent study recordings, change the study plan dynamically. Including add/reduce your reviewed words, the maximum number of words learned per day.

Scope

The Minimum Viable Product (MVP) will include the following features:

- User registration and login.
- User preference, including change the level of English study, set the personal goal, choose the vocabulary book(example: IELTS,Oxford).
- Invite other users, including make a team with friends and finish the common study goal(example: all team members should learn 20 new words today).
- Dynamically change the studying plan. when user have a period of time without using this software to study, it will decrease the new daily words and show more learned words to review. And if user learn new words quickly in recent days, it will increase the difficulty and show more new words in the future study.

Quality Attributes

the key to success of this software comes from the consideration of following attributes:

- security: Users' privacy should be protected, ensuring that only authorized software and applications can access the information and content they can view.
- Reliability: based on level of English ability, this software could provide detailed learning plan for different users, in case they could get efficient study.
- Availability: for new users, this software could provide friendly navigation. And for junior learner, this software will not provide many difficult words but encourage user to quickly get started.
- Maintainability: with the increase of user data, the studying plan and user learning habits algorithm also need to be updated. Therefore, it is important to focus on the maintainability of the code to ensure that the system can run stably in the long-term.
- Scalability: this software should be able to handle large numbers of users and provide consistent performance during peak usage.
- Extensibility: this software needs to consider extensibility. For example, add a visual diagram to help user to view the studying history. And it must be scalable enough to allow for quick and easy addition and modification of new features.

Dont Remember's quality attributes are prioritized as follows: Security > Reliability > Availability > Maintainability > Scalability > Extensibility.

Evaluation

Dont Remember will use these tests and evaluations to check if the software fits quality attributes and need improvements.

- Security test: Test whether other unauthorized software could access the user data.

- Functionality test: Test whether the software can correctly create the user's personalized studying plan and change it dynamically.(Black Box Test)
- Availability test: Test whether the software is easy to use and navigate, and whether it provides personalized recommendations based on user preferences and limitations.
- Maintainability test: Test whether the software is easy to update and improve to make changes based on user's study status.
- Scalability test: Test whether the software can handle a large number of users and provide consistent performance during peak usage.