

TopDoc

Background

Language learning apps such as Duolingo enable learners to build and maintain language skills. In particular, Duolingo does a good job of recognizing when users haven't studied vocabulary in a while and constructing exercises that refresh them. TopDoc's client is looking for a similar application for use by medical professionals that must keep up with many terms relevant to their field and everyday practice. The proposed system will test medical professionals on their familiarity with such terms and develop regular exercises for maintaining that vocabulary. This can be done through a mobile app that provides notifications when it comes time to refresh vocabulary terms.

Executive Summary

The system will maintain a database of terms that the user is expected to know. After a pretest, the system will have evaluated the user's familiarity with each term and then build a set of exercises that can be completed to improve mastery of terms. These exercises can reflect common vocabulary learning exercises. As time passes, mastery of individual words will decay and the app will continue to generate practice exercises. This is very similar to the way Duolingo functions, which has proven very effective for language learners. The exercises can be gamified to make the exercises fun and reduce the tendency for users to ignore them. Notifications will notify users when it's time to brush up, and similarly to how Duolingo works, streaks can be built up by users to encourage diligence and consistent practice.

Viability Analysis

Development requires common app features, though features like notifications may require platform specific implementations. Development should be initially concentrated on a single platform targeting the greatest percentage of users. Testing could be difficult as access to willing medical professionals would need to be worked out. This solution should be fairly straightforward from a software development perspective. As Duolingo has already proven successful, studying its implementation may inform design decisions clearing up murkier aspects of tuning the software.

Risks and Rewards

If definitions are not accurate this tool could risk lives, so verification is required. If successful this could greatly improve the knowledgeability of the average medical professional. Users that have spent a long time away from schooling could be kept up-to-date with new terms with this solution.

Closing

This system can be implemented in a straightforward manner and with results that have wide beneficial effects. It's also likely that users will try to participate with the app instead of seeing it as a chore if it's tuned well. Similar apps have already proven successful so success is expected.