Math minilexicon (Matemaatika minileksikon)

This project is about redesigning and rewriting a popular, but outdated Android app for learning primary and secondary school level mathematics targeted towards Estonian schools. It covers everything required by the official curriculum (õppekava) and includes useful tools such as the quadratic equation solver. The current app is highly rated among its users, it has over 10,000 downloads and at its peak had over 6000 active users.

We plan to release all the content to public under Creative Commons Attribution-ShareAlike license ( https://creativecommons.org/licenses/by-sa/4.0/ ) and wish to release the new app under an open source license such as GPL ( https://www.gnu.org/licenses/gpl-3.0.en.html ).

Requirements

- The app design must address a variety of devices including smartphones and tablets of different screen sizes.
- All the app content must be accessible offline with good search functionality such as TF-IDF with cosine similarity.
- Simplify content writing pipeline to make it easier for everyone to contribute new content and make fixes.

Although the basic concept of the application is simple, Android development takes generally more time and the final application needs to be well tested and bullet-proof, so we could distribute it to an active user base owning many different types of devices.

Fair share of time may be required to modernize the content-writing pipeline as well and various quirks and incompatibilities between the devices have to be addressed, so the content would be rendered correctly. That said, situation is now much better than five years ago, when the original app was published. We have already uploaded the existing materials to a Github repository: https://github.com/bavuwe/matemaatika/tree/master/materials/lyx .

Contacts
Timo Petmanson, tpetmanson@gmail.com
Kristjan Krips, kripsk@gmail.com