College of computer & Information systems
Computer Science department
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Nateq

Al-Qaida Al-Nooranih for Learning Arabic Pronunciation (Using Automated Speech Recognition ASR)

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Abstract

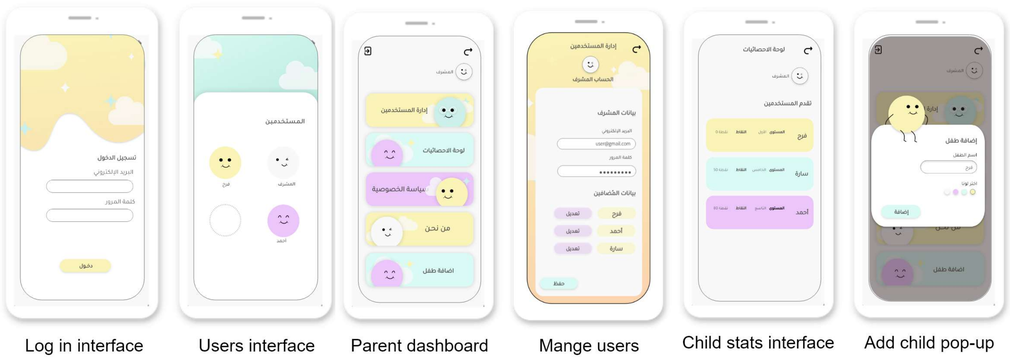
The Arabic language is one of the most spoken languages around the world, so it is necessary for us as Muslims and Arabs to learn the language correctly with its proper pronunciation. Learning Arabic with correct pronunciation at an early age is one of the best ways to make the children's language rich and powerful with the correct pronunciation.

Nateq application help and facilitate learning the correct Arabic language pronunciation for children using Al-Qaida Al- Nooranih by using speech recognition, which will improve their reading and pronouncing skills.

Objectives

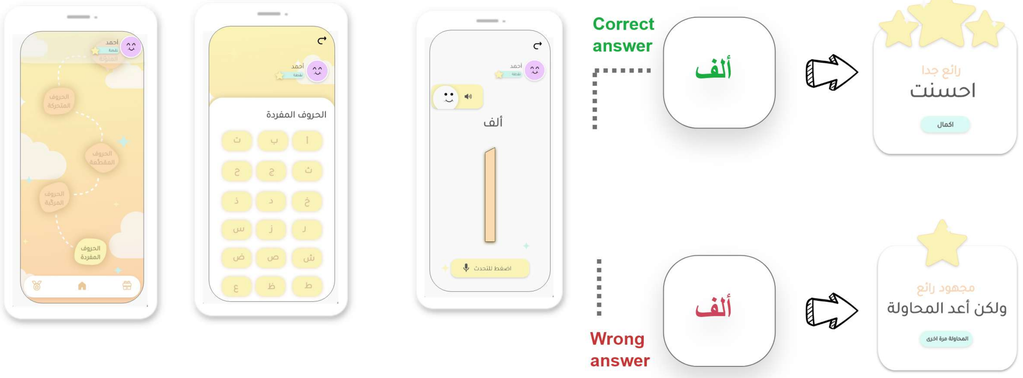
- Developing an enjoyable and easy-to-use educational application for improving children's pronunciation using Al-Qaida Al- Nooranih.
- Helping children learn the skill of pronunciation with listening, reading, and repetition.
- Helping parents in teaching their children the correct pronunciation of the Arabic language.
- Simplify learning by providing a variety of gradual lessons.

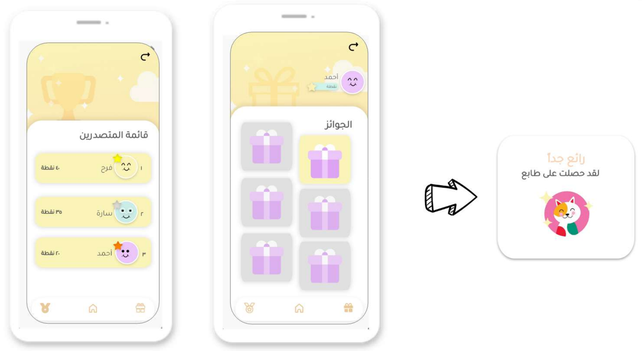
Prototype



Log in interface | Users interface | Parent dashboard | Mange users | Child stats interface | Add child pop-up

Child side

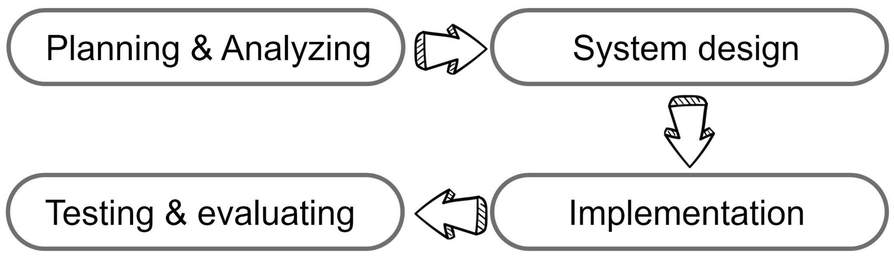




Leaderboard interface | Reward interface

Methodology

Agile methodology was chosen for developing Nateq app



Tools

Python | Kivy | Google speech API | Firebase | VS code | GitHub

Future work

Additional languages | AI Characters | More age categories | Real-Time Feedback

Conclusion

Improving the Arabic language pronunciation skills is necessary for us to build generations with a strong and rich lingual by using the presented technology to serve our language and society.

Nateq application will help in improving the Arabic language pronunciation for children using speech recognition technique, that presented as a fun motivational educational game to strengthen the language.

Contact us

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References