



إشارة

لغة الإشارة السعودية

A Machine learning-based System for the Saudi Sign Language learning and Recognition

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Abstract

Sign languages are used by deaf and hard-of-hearing people as a means of communication and self-expression. Similar to any spoken language, sign language has its own rules and also vary across different countries. In order to help people learning sign language, especially in Saudi Arabia.

Objectives



Study related work and existing apps.



Identify the available datasets.

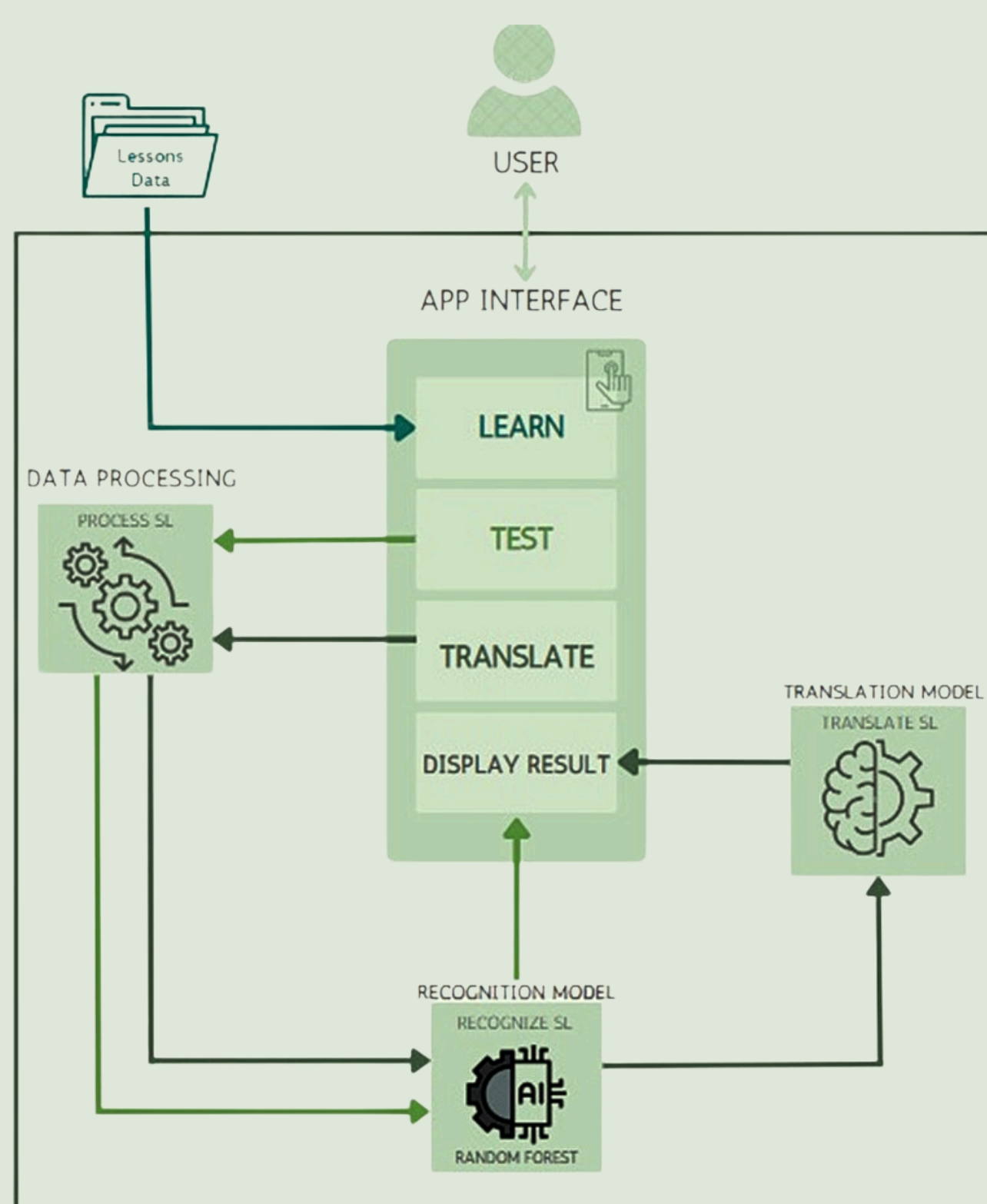


Develop a mobile application.

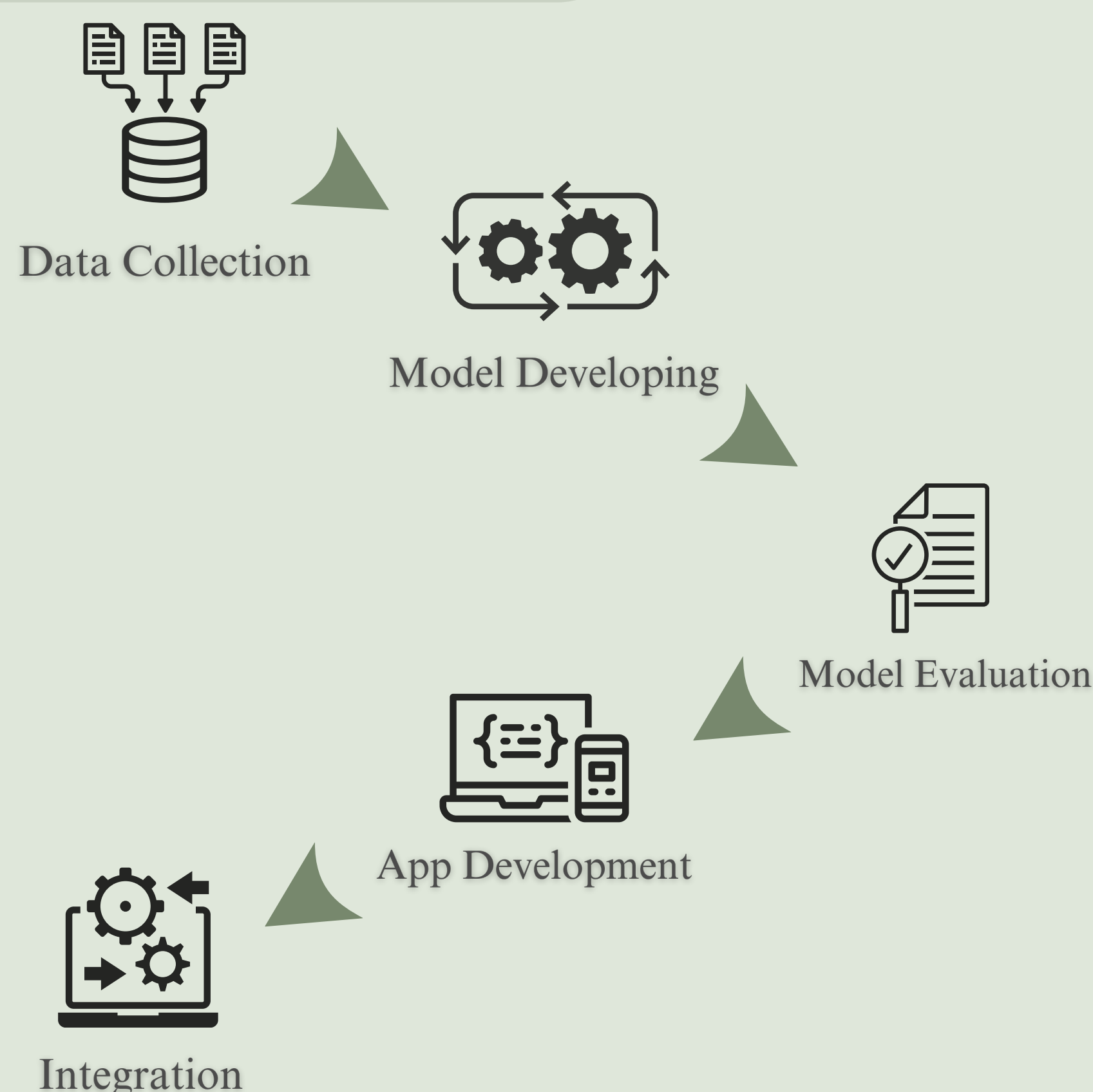


Develop a machine learning-based model to recognize the sign language.

Architecture Diagram



Methodology



User Interface:

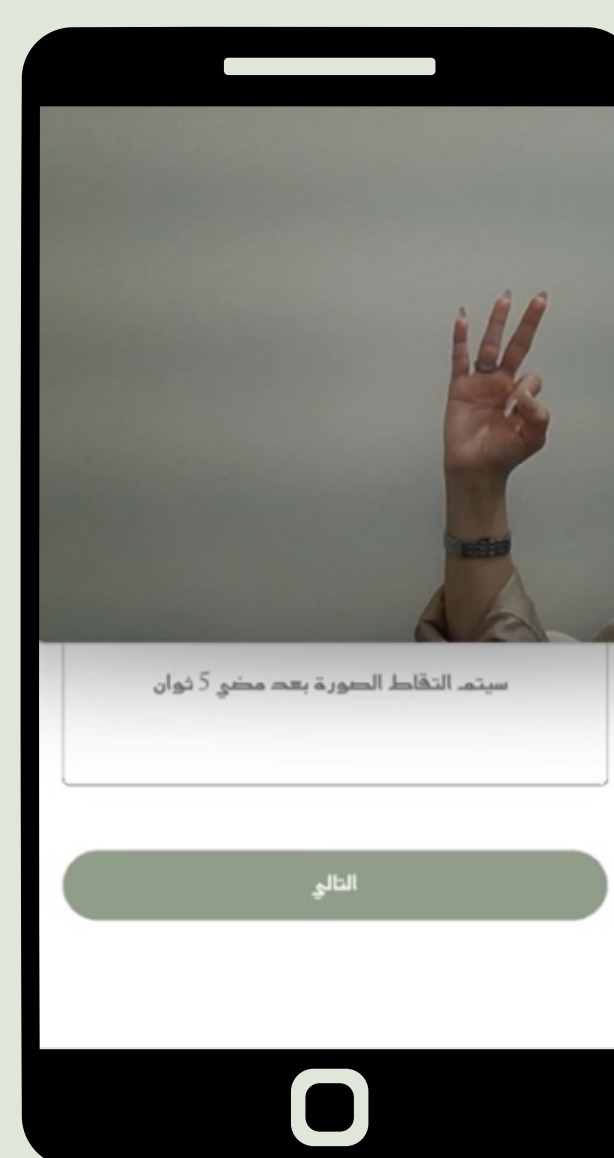
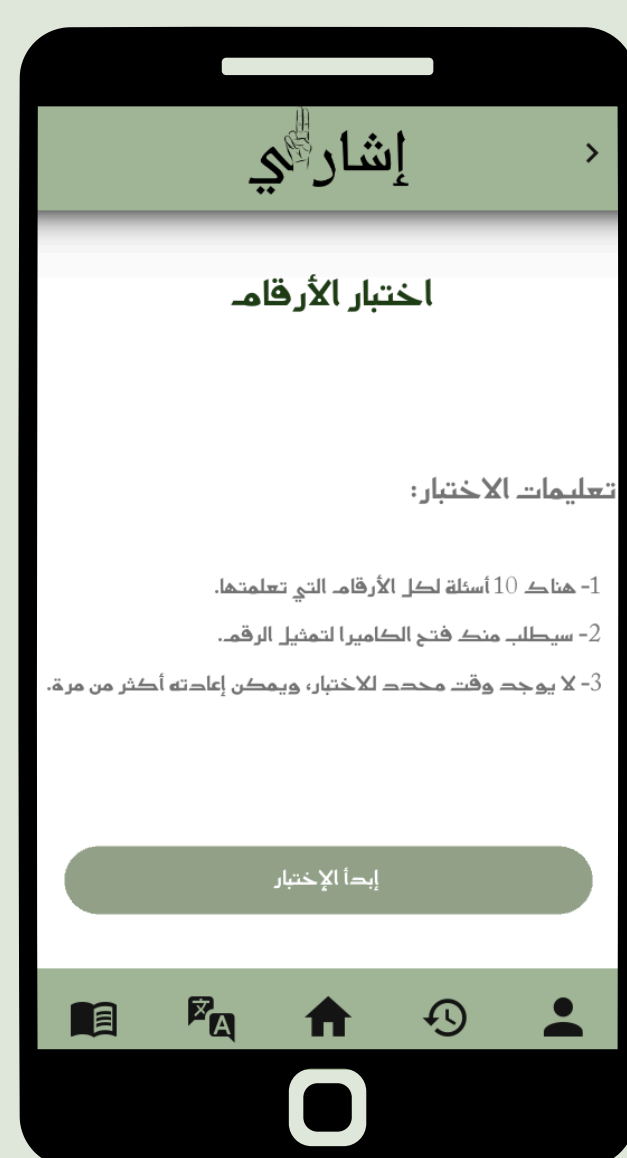
WELCOME PAGE



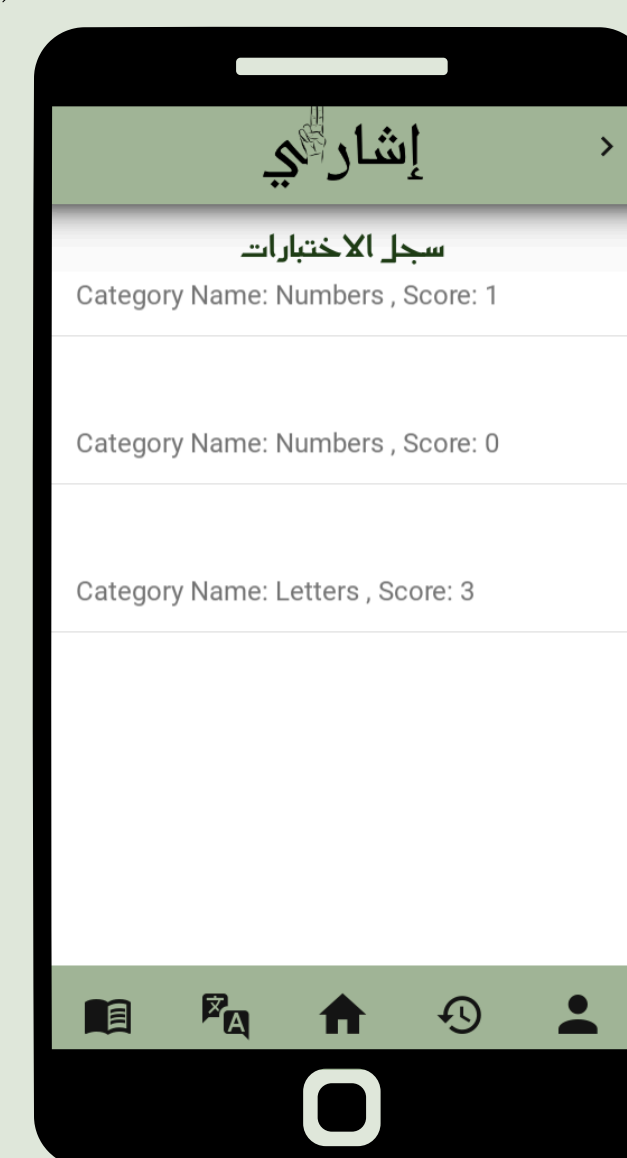
HOME PAGE



TEST PAGES



HISTORY PAGE



Conclusion & Future work



We created an application that enables deaf and non-deaf people to learn sign language and test their level. Also, our app supports static gestures only. As a future direction, we plan to expand our work by supporting dynamic signs including facial expressions and body posture, adding video-to-text translation, and improving the recognition system.

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