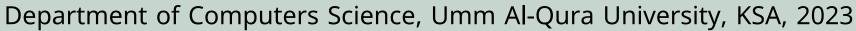


Stuttering treatment using machine learning

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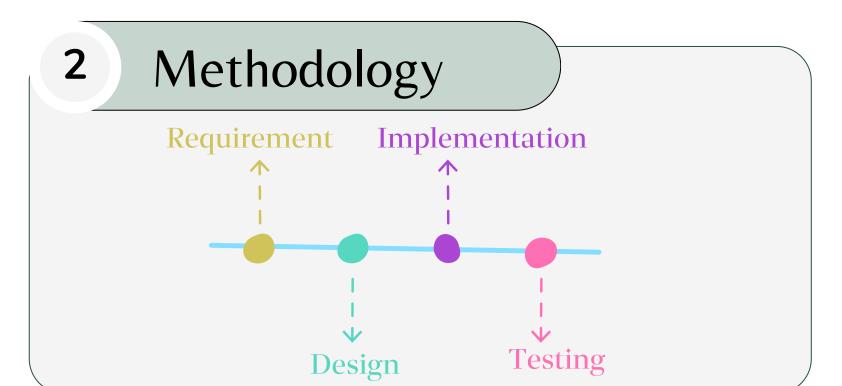
Project ID: CS-451-P2-F09



1 Abstract

The **ABAN** app is a comprehensive stuttering therapy tool designed to **support Arabic speakers**. The app **uses machine learning to diagnose stuttering severity** and provide personalized **therapy exercises** for stutterers. The study aims to validate the app's effectiveness over a designated period, focusing on Arabic-speaking individuals aged twelve and older.

The app's potential impact is significant, as it could provide a scalable, low-cost approach to stuttering therapy for the vast number of Arabic speakers worldwide.



3 Objectives

- Helping people who stutter control stuttering through speech therapy.
- Use the **AI to diagnose** the rate of stuttering and save results for tracking the improvement of the user.
- Develop ABAN application in **Arabic language**.









7 Tools













6 Future Work



Determine the type of stuttering.



Users can choose specific words and practice them.



Creating specialized exercises tailored to each individual's specific condition.



Using AI to generate stories and poetry according to the user's preference.

8 Conclusion

In conclusion, the Aban application contains many features that help people who stutter to control stuttering by providing a diagnosis that uses AI and speech therapy. The application aims to make treatment available and help people speak fluently. With continued development and evaluation, the Aban app may become a valuable new resource both for people who stutter and for the speech pathology clinicians dedicated to helping them.