SmartTalk: A Gamified Mobile Language Learner Application

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Motivation

Dilemma
- ❖ Lack of mobile software for pronunciation training
- ❖ No gamification motivation
- ❖ No relevant feedback
- ❖ Lack of customization for designers

Solution
- ❖ Gamified Mobile App for language learning
- ❖ Focused on pronunciation, gamification

Technologies

Flutter — Cross platform mobile app framework

Vosk — ASR Library built for mobile devices

Firebase — Backend services and database
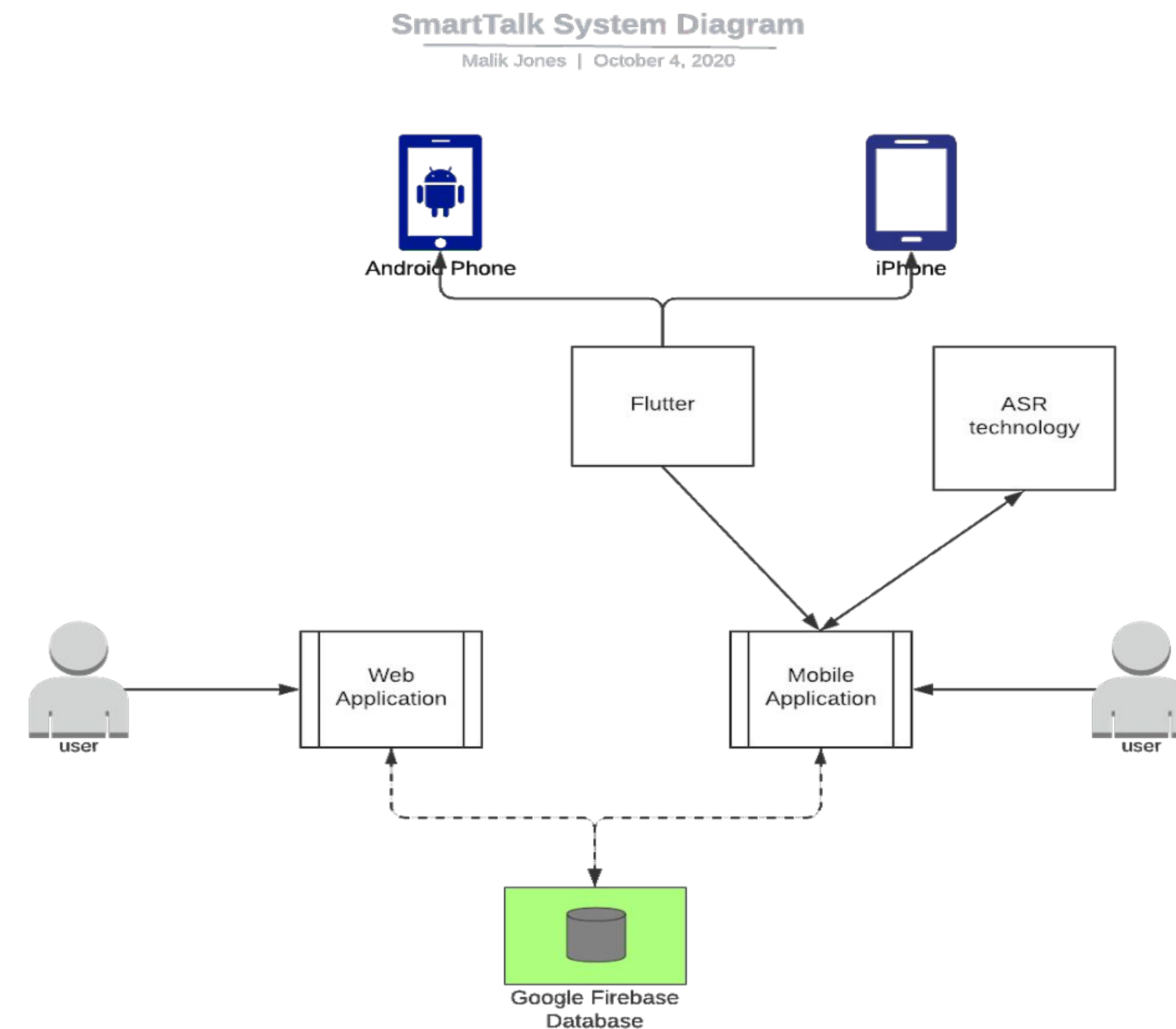
Challenges

Automated Speech Recognition (ASR)
- ❖ Some don't have documentation
- ❖ Some only works on one platform
- ❖ Developers for cross platform are new and/or have not been further developed

Audio Plugin
- ❖ IOS plugin would not work but only would work for Android

Solution Overview

SmartTalk System Diagram
Malik Jones | October 4, 2020

## Key Features

Automatic Speech Recognition (ASR) feedback

Course creation and custom Lessons

Badges and Achievements to award progress

Acknowledgements

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Mobile Application
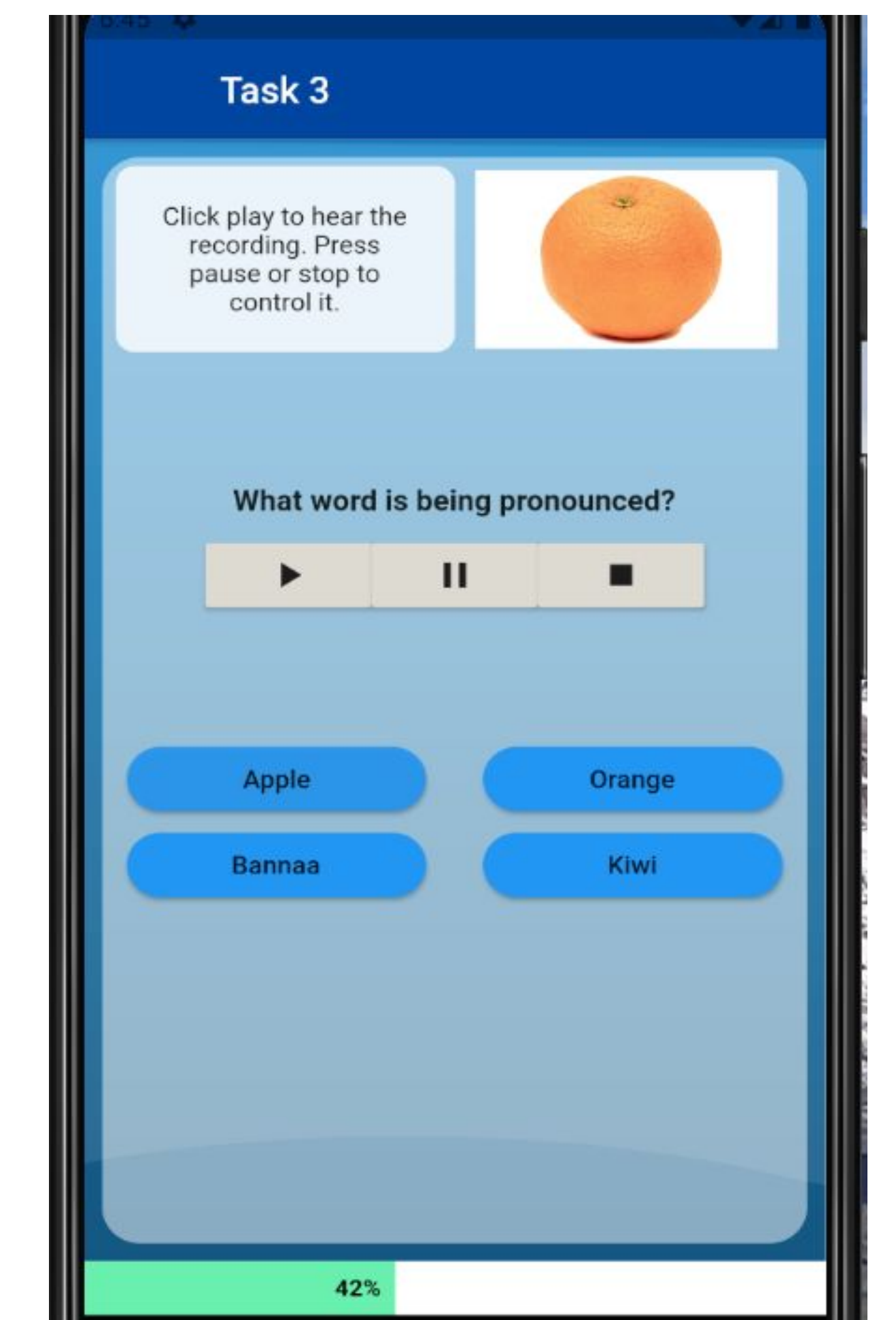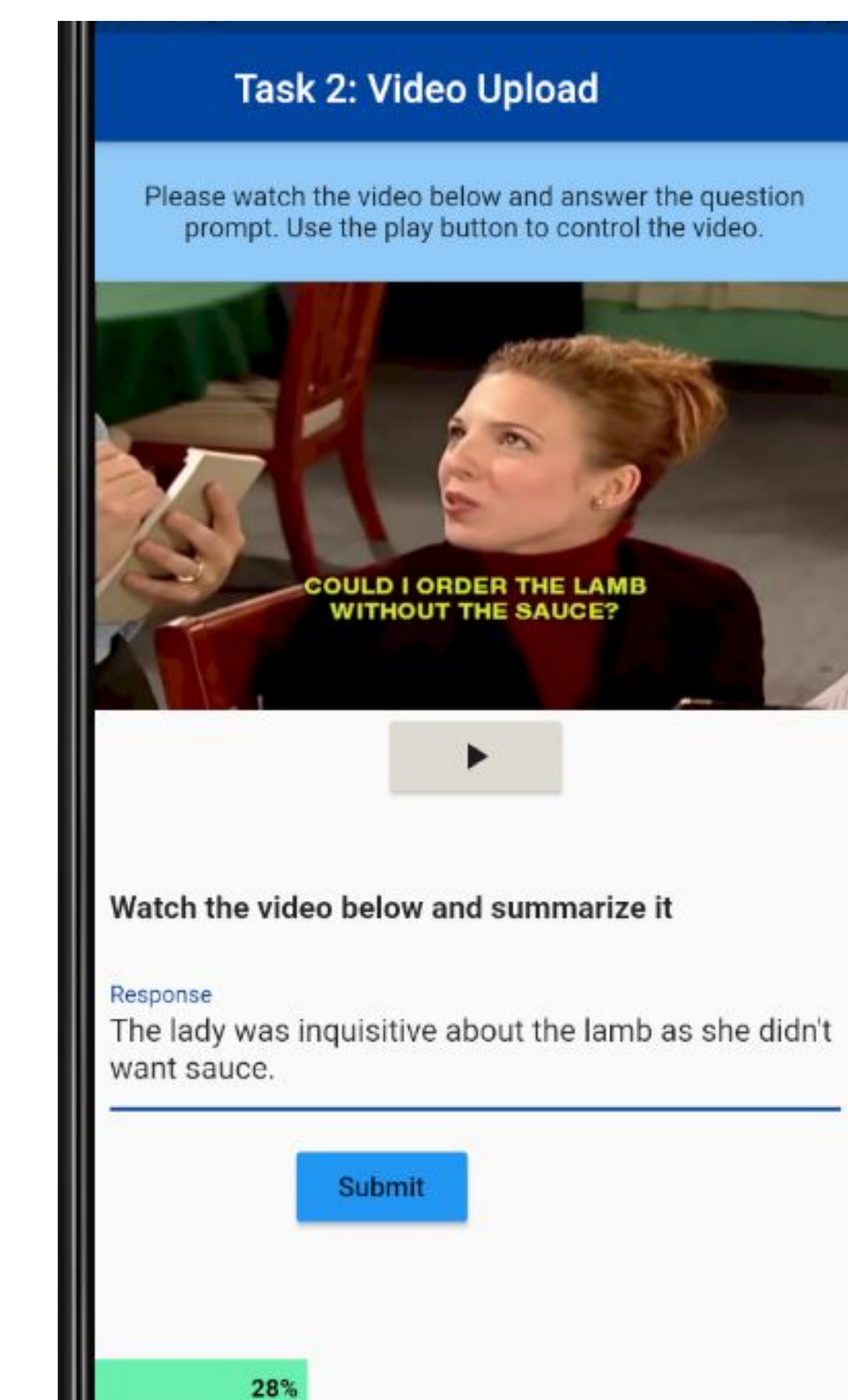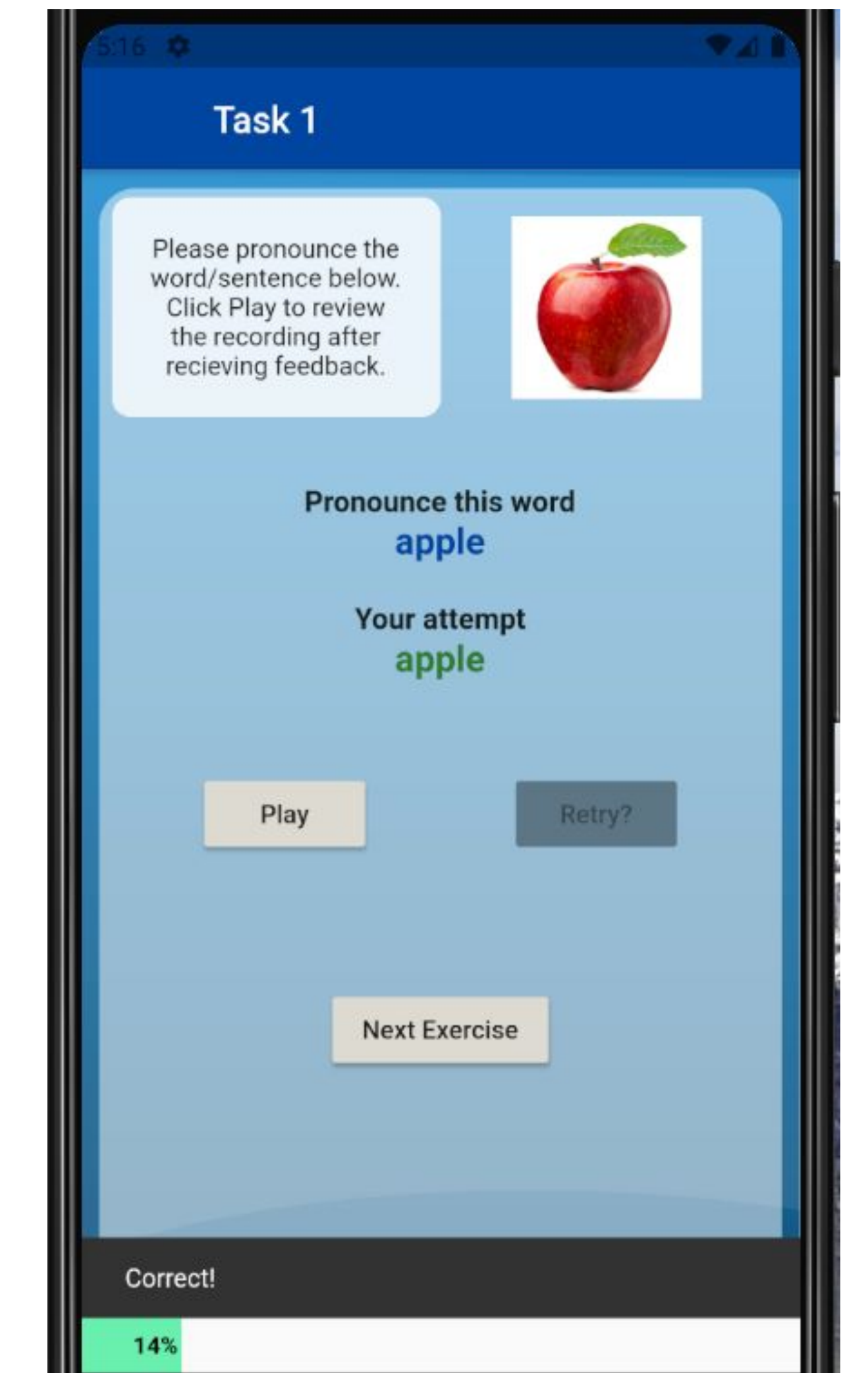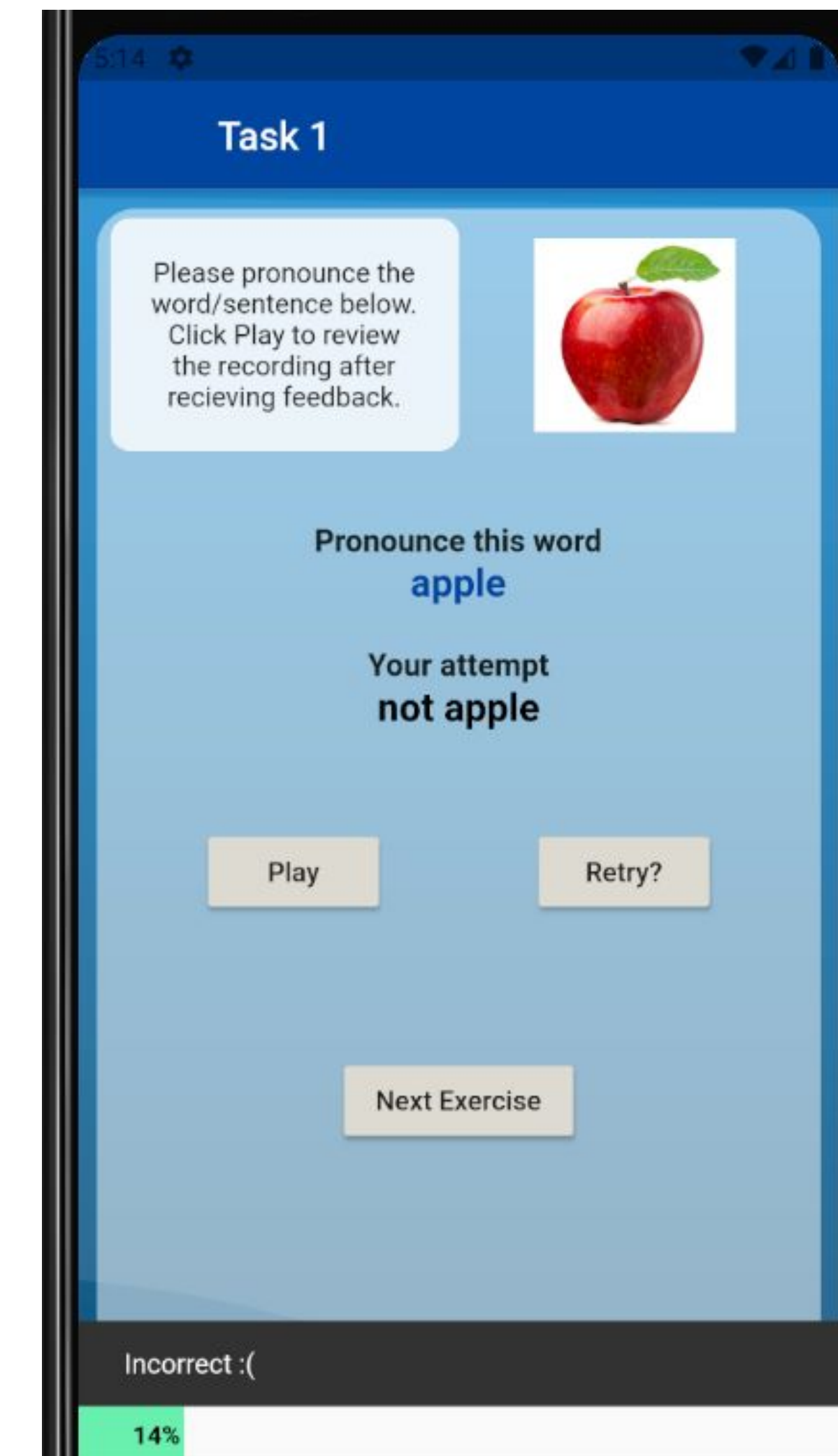
Future Works

- ❖ Phoneme Recognition
- ❖ Peer to peer gaming
- ❖ Live Lessons
- ❖ Expanded statistical analysis
- ❖ Desktop Application