**Software Requirements Specifications**

**For**

**English Listening App**

Version 1.0

**Developed By:**

Daric Sage

Jared Regan

Jordan Lambert

Justin O’Neel

Table of Contents

[1 Project Description 2](#_Toc504136367)

[2 Product Perspective 3](#_Toc504136368)

[3 Product Functions 3](#_Toc504136369)

[4 User Characteristics 4](#_Toc504136370)

[5 Constraints 4](#_Toc504136371)

[6 Assumption and dependency 4](#_Toc504136372)

[7 Apportioning of requirements 4](#_Toc504136373)

[8 Specific Requirements 5](#_Toc504136374)

[8.1 External Interface 5](#_Toc504136375)

[8.2 Functions 5](#_Toc504136376)

[8.3 Performance Requirements 5](#_Toc504136377)

[8.4 Logical Database of Requirements 6](#_Toc504136378)

[8.5 Design Constraints 6](#_Toc504136379)

[8.6 Software system attributes 6](#_Toc504136380)

[8.6.1 Reliability 6](#_Toc504136381)

[8.6.2 Availability 6](#_Toc504136382)

[8.6.3 Maintainability 6](#_Toc504136383)

[8.6.4 Portability 7](#_Toc504136384)

[8.7 Organizing Specific Requirements 7](#_Toc504136385)

[8.7.1 User Classes 7](#_Toc504136386)

# Project Description

* This project is specific to the country Nicaragua. We are developing an app for the people of this country to learn english. This app will serve as a learning tool to assist the people in everyday life for work and trade. With this app they are able to take lessons in english to help them better understand the language and apply it to their daily lives. It is mainly targeted for grades 7-11 but can be used by all as it will be on both the Apple store and Android store. With this project we hope to develop a model of our app for others countries to use as well.

# ****Product Perspective****

* This product will be an app created on both the Apple and Android Store. It will be free to all users and there will be a default view for all users. There are no memory constraints as of right now and the app will support android 4.1 and higher and iOS 8.0 and higher. There will also be an Administrator view, which can control what lessons they want to update and for new content to be added.

# ****Product Functions****

* Users launch the app and are prompted to choose a grade level
* Once chosen they are then taken to the lessons that are associated with the grade level
* They then choose which lesson they want
* The audio will start playing (option to pause anytime) and the text file will appear on the screen for reading
* Once done they can either select a new lesson or have the audio playback
* They can then go back and select a new grade level or close the app

# ****User Characteristics****

* Have an Android or IOS device supported by 4.1 and higher for Android or iOS 8.0 for Apple products
* Have an internet connection to download/run the app
* Some technical skills to work the app

# Constraints

* Can only run on Android 4.1 and higher, or IOS 8.0 and higher
* Won’t be able to interface with other applications
* Only language option is English

# Assumption and dependency

* Dependency: Need IOS 8.0 or higher or Android 4.1 or higher.
* Will have access to internet/mobile data to download the app and receive updates.

# Apportioning of requirements

* Sharing video.
* Recording audio.
* Text on screen.
* Save, replay, and delete own recordings

# Added Functionality (post submission)

* The ability for the user to change the rate in which the audio plays to allow for easier listening.
* A link to a page on the admin site that contains a survey link. The users can use that link to navigate to a survey to take.
* The ability to view a PDF lesson. This lesson contains a pdf file instead of an mp3. This will open the pdf for viewing by the user.

# ****Specific Requirements****

## ****External Interface****

* + Application will run on IOS and Android
    - iOS 8.0 or higher
    - Android 4.1 (API 16) or higher

## Functions

* + Application will have two types of users, admin and default user.
  + Admin will be able to add/remove grade levels, lessons, topics, and audio files.
  + Default user will be able to pick a grade level, then pick a topic, finally pick a lesson, and play the audio file associated with that lesson and displays the text that the audio file is playing.
  + Default user will interact with the application through buttons on the screen.
    - Stimulus: User clicks grade level.
    - Response: Application navigates to the topics page.
    - Stimulus: User clicks a topic.
    - Response: Application navigates to the lessons page.
    - Stimulus: User picks a lesson.
    - Response: Application plays the audio file associated with that lesson and displays the text that the audio file is playing.

## ****Performance Requirements****

* + Static requirements
    - The application will support a minimum of 500 users.
  + Dynamic requirements
    - No requirements specified.

## Logical Database of Requirements

* + Database will store audio files and text files.
  + The application will have the ability to add/remove files to the database if on admin user.
  + If on default user, the application will have the ability to pull audio and text files from the database to play the audio file and display the text within the text file.

## Design Constraints

* + Must use React Native for mobile app development.
  + The Application must function offline.
  + The stored audio file is .mp3

## Software system attributes

### Reliability

* + - Manually tested against crashing the app: default user and admin sides.
    - Works offline.

### Availability

* + - On the Google Play store for Android, free
    - On the Apple App store, free

### Maintainability

* + - Admin can add / remove text and audio files.
    - Admin can add / remove grades, topics, and lessons.

### Portability

* + - Available on mobile devices and any other device that supports the provided OSs.

## Organizing Specific Requirements

### User Classes

* + - **Default user**
      * This is the account used by both the Teacher and the Student. This user has basic access to the application content: select grade, select topic, select lesson, download audio file, listen to audio files, and record and listen to themselves.
    - **Admin**
      * This is the account used by Administrators. They can upload and delete audio files that the default user has access to. The admin can also add or remove grades, topics, and lessons that the default user can select from.