Requirements Document

Product

Talkbox is a device used to help people who are unable to speak. It contains a number of buttons that can be pressed and will play pre-recorded audio files. Talkbox consists of 2 parts, the device and the configuration app. For this assignment, we will be creating a simulator for the actual device.

The simulator will simulate the actual Talkbox hardware. The number of buttons and their functionality is configurable using the Talkbox Configuration app. The configuration app will allow the user to use pre-recorded audio files. The number of recorded audio files to be displayed on the Talkbox simulation will also be configurable through the configuration app.

System Requirements

The simulator app simulates the actual Talkbox device. It is able to play different audio clips when each button is pressed. The audio to be played can be easily identified by the word or phrase on the button being pressed.

The configuration app allows the user to change the number of buttons and the audio clips for the simulation. Users are able to use pre-recorded audio clips for the Talkbox. For ease, there is the option to save the current button and audio configuration so that the current configuration can be used in the future. The most important part of this app is that the current button and audio clip configuration can be tested on the simulator app before actually being used on the Talkbox device.

In order to have full functionality of this app you must have openjdk 11 installed, have a local copy of JavaFX SDK version 11.0.2, which can be download from https://gluonhq.com/products/javafx/, and also a copy of freetts version 1.2.2 which can be downloaded from central.maven.org/maven2/net/sf/sociaal/freetts/1.2.2/freetts-1.2.2.jar. The executable jars require these libraries to properly load the app.

Interface Requirements

The interface for both apps is aesthetically appealing and simple to use. The GUI is fairly self-explanatory. There are a few instructions to help new users, but ultimately, the apps are easy to use. The few instructions to use the apps can be found in the User Manual.

The simulator app simply displays the buttons that have been configured in the configuration app, and when pressed, play the audio clip that was configured. This app allows the users to test if they like the audio being played, or the order of the buttons being displayed and will give them an idea of whether or not they like the current state of the buttons and audio.

In the configuration app, users can use some of the pre-recorded audio clips that are already on the device. The text on buttons can be changed so that the user can identify which

button plays which audio file. The text on the buttons corresponds to the audio clip that will be played.