EECS 2311 Authoring App:

Requirements Document

**Introduction**

This document describes the required features of the Authoring App. This app is the third part of a three-part project in creating software for a hardware device used to help kids read Braille. In the second part of the project, a Player App was created to play stories for the users. The “stories” are text files with special keywords that allows display of Braille characters onto the hardware, input from the hardware (and based on the input, go to a different branch of the story) and more. The purpose of the Authoring App is to allow educators to create scenarios as they see

**Definitions**

For the purpose of this document, scenarios are text documents (.txt extensions) with keywords in them. Scenarios are played by the Player App and based on certain keywords, do certain actions. A list of keywords can be found at <https://wiki.eecs.yorku.ca/course_archive/2016-17/W/2311/_media/playerfileformat.pdf>.

**Customer Requirements**

1. The program should allow users to create scenarios that can be played by the Player App without knowing the underlying keywords via a GUI.
2. The program should have a GUI.
3. The program should allow users to create scenarios with branches based on user input.
4. The program should run on Windows and Linux.
5. The program should have audio support. This means the GUI should allow scenarios to incorporate audio files that have been created with other apps. It should also provide a way to record audio clips during running the program, store the clips and allow them to be used in the creation of the scenario. All audio clips should have a .wav extension.
6. The GUI should be able to support a majority of the keywords in the Player App File Format not limited to repeating certain text based on user input, changing voice available when reading, creating branches in story based on user input, playing audio, pausing playing of the scenario for a certain amount of time and playing audio clips.
7. The users should be able to go to a toolbar and generate the scenario based on the input on the GUI. Basically actually creating the .txt for the Player App.
8. Users should specify the amount of buttons and cells the Braille hardware has.

**Acceptance Test Cases**

The general idea of how the GUI works is the user opens the program. There should be options to create a “node”. A node consists of three fields. Two of the fields at the top allow users to put functions into the scenario such as pausing the progression of the story for a certain set amount of time while a larger textbox below it is for text. A scenario is a sequence of these node and is created by following a linear progression starting from the highest node to the bottom. There should be a toolbar at the top allowing users to generate the scenario. Pressing it will create a .txt file (scenario) based on how the nodes are structured (branches), text inside each node and tag in the GUI.

**Test Case Scenario: Creating Scenario with no Keywords**

Users should first fill out two textbox prompting for how many cells and button the hardware has. Users should click on a button to create a node. Leave the two fields at the top blank. Click on the larger textbox below and type in the text you want the story to have. To add more nodes, simple click add node and another node should appear below the first node. Again, do not fill anything in the two fields. Continue adding nodes (and filling out the fields inside a node) until satisfied. User can generate the file by clicking that option in the toolbar at the top and specifying what the file should be called.

**Test Case Scenario: Creating Scenario with Keywords**

Users should first fill out two textbox prompting for how many cells and button the hardware has. Users should click on a button to create a node. Instead of leaving the two fields at the top blank, scroll the leftmost field to select a function. The rightmost field is for users to input more information regarding the function. For example, selecting “Pause” and filling out “3” in the rightmost text field to create a pause for 3 seconds. The function should be applied before the text in general. Click on the larger textbox below and type in the text you want the story to have. Continue adding nodes (and filling out the fields inside a node) until satisfied. User can generate the file by clicking that option in the toolbar at the top and specifying what the file should be called.

**Test Case Scenario: Creating Scenario with Branches**

Users should first fill out two textbox prompting for how many cells and button the hardware has. Users should click on a button to create a node. To create branches, instead of adding one node after the first node, add multiple node onto the same level. The GUI will assume when playing the scenario, pressing the first button will go to the leftmost node, second to the second leftmost node and so on. Fill out the nodes as normal. User can generate the file by clicking that option in the toolbar at the top and specifying what the file should be called.

**Test Case Scenario: Recording Audio**

There should be a button that when the users clicks on it, start recording audio from users’ microphone. Click the button again to end it and it will prompt users what to call the audio. The audio should be saved into the desktop with that name.

The above test cases cover all possible scenarios when using this GUI based on customer requirements.