

Requirements Document

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Use Cases

Create Scenario
Description: User starts a new scenario
Actor: User
Preconditions: <ol style="list-style-type: none"> 1) User selects a name for the scenario they want to create. 2) User indicates the number of braille cells they have available. 3) User selects the number of answer buttons available.
Basic flow of events: <ol style="list-style-type: none"> 1) User starts Scenario Creator. 2) User chooses Create New Scenario in starting window. 3) User names the scenario. 4) User indicates the number of braille cells and answer buttons available.
Exceptions: <ol style="list-style-type: none"> 1) Scenario Name field cannot be empty. The system will warn the user to enter a scenario name. 2) Braille Cells Available field must contain a number. The system will warn the user to enter a number if the field is left empty or a non-numerical character is entered in this field. 3) Answer Buttons Available field must contain a number. The system will warn the user to enter a number if the field is left empty or a non-numerical character is entered in this field.
Post-conditions: The user will be brought to the main Scenario Creator window, where they can create different sections for their scenario.

Save Scenario
Description: User saves a scenario as a text file
Actor: User
Preconditions: <ol style="list-style-type: none"> 1) At least one section has been completed and saved
Basic flow of events: <ol style="list-style-type: none"> 1) User fills out the Section Name, Answer Buttons Used, Story, Braille and Answer fields in the main Scenario Creator window. The correct and incorrect fields may be left empty. 2) User saves the section. 3) User can choose to write and save more sections. 4) User selects the Save Scenario option in the Scenario menu.
Exceptions: <ol style="list-style-type: none"> 1) At least one section has to be saved before the scenario itself can be saved. The system will warn the user to save a section before trying to save the scenario.
Post-conditions: The scenario will be saved and a text file will be saved on the user's system.

Load/Edit Scenario [Does not current work in this version]
Description: User edits a previously created scenario
Actor: User
Preconditions: <ol style="list-style-type: none"> 1) User has to have already created and saved one scenario. This implies that there is also at least one section that has been created and saved.
Basic flow of events: <ol style="list-style-type: none"> 1) User selects the Edit Scenario button in the first window that appears after opening the Scenario Creator program. Users may also select the Load Scenario option in the main window. 2) In both cases, a file chooser window will appear, prompting users to select the file they would like to edit. 3) After selecting an appropriate file, users can use the combo box to select which section they would like to review and edit.
Exceptions: <ol style="list-style-type: none"> 1) If the user selects a file that is not compatible with the Scenario Creator program, the system will warn the user to select another file.
Post-conditions: Users can make changes to individual sections. They will then be able to save changes to these sections as well as the scenario itself.

Test Scenario
Description: User is able to test out a created scenario using a simulated braille cell
Actor: User
Preconditions: <ol style="list-style-type: none"> 1) User must have created and saved one scenario
Basic flow of events: <ol style="list-style-type: none"> 1) In the opening window, user selects the Test Scenario option or in the main Scenario Creator Window, user selects the Test Scenario option from the Scenario menu or shortcut. 2) User can then choose between using a Visual Player which will visually simulate the braille cell or Audio Player, which will accompany the visual display with audio accessibility options. 3) A file chooser will appear and prompt the user to choose a scenario to test.
Exceptions: <ol style="list-style-type: none"> 1) If the user chooses a file that is not compatible with the Scenario Creator, the system will prompt the user to choose another file.
Post-conditions: The scenario will be loaded and the user can test out the scenario.

Save Section
Description: User saves a section
Actor: User
Preconditions: <ol style="list-style-type: none"> 1) User has selected Create a New Scenario in the opening window. 2) User has named the scenario and indicated the number of braille cells and answer buttons available. 3) User completes the Section Name, Answer Buttons Used, Story, Braille and Answer text fields.
Basic flow of events: <ol style="list-style-type: none"> 1) User starts Scenario Creator and chooses Create New Scenario. 2) User provides a name for the scenario, and indicates the number of braille cells and answer buttons available. 3) User fills out the Section Name, Answer Buttons Used, Story, Braille and Answer text fields. 4) Correct and Incorrect text areas are completed (optional). 5) User presses the Save Section button or uses the Save Section shortcut from the menu.
Exceptions: <ol style="list-style-type: none"> 1) Section Name field cannot be empty. The system will warn the user to enter a section name. 2) Answer Buttons Used field cannot be empty, contain a non-numerical character, or a number greater than the number of answer buttons available indicated in the previous window. The system will warn the user of these conditions and prompt them to enter another number. 3) The Story text area cannot be empty. The system will warn the user to write something in the Story Text Area. 4) The Braille text field cannot be empty, contain a non-alphabetical character, or a word that has more numbers than the number of braille cells available as indicated in the previous window. The system will prompt the user to enter another word. 5) The Answer field cannot be empty, contain a non-numerical character, or a number that is greater than the number of answer buttons used. The system will prompt the user to enter another number.
Post-conditions: The section that the user was working on is saved. The section name appears in the drop down combo box.

Set Pins on Braille Cell(s)
Description: User sets the letter / word they want displayed on the braille cells
Actor: User
Preconditions: <ol style="list-style-type: none"> 1) User has selected Create New Scenario or Edit Scenario in the opening window. 2) User has named the scenario and indicated the number of braille cells and answer buttons available.
Basic flow of events: <ol style="list-style-type: none"> 1) In the main Scenario Creator window, the user indicates the letter or word they would like displayed on the braille cell in the Braille text field.
Exceptions: <ol style="list-style-type: none"> 1) The word entered can only contain alphabetical characters and cannot contain more letters than the number of braille cells available as indicated in the previous window. The system will warn the user to enter only alphabetical characters, and that the number of letters has to be less than or equal to the number of braille cells available.
Post-conditions: The pins on the braille cells will display the word that the user has indicated in the braille text field when the scenario is run.

Record Audio
Description: User record audio
Actor: User
Preconditions: <ol style="list-style-type: none"> 1) User has selected Create New Scenario or Edit Scenario in the opening window. 2) User has named the scenario and indicated the number of braille cells and answer buttons available. 3) User clicks the add sound button or uses the menu shortcut in the main Scenario Creator window.
Basic flow of events: <ol style="list-style-type: none"> 1) In the main Scenario Creator window, the user clicks the Add Sound button or uses the menu short cut. 2) The user selects the record sound option. 3) A new window will pop up, prompting the user to enter a name for the sound file and to enter the length of the recording in seconds.
Exceptions: <ol style="list-style-type: none"> 1) The user has to name the sound file. If the sound file name field is empty, the system will prompt the user to enter a name. 2) The user has to indicate the length of time they want to record for in seconds. Otherwise, the system will default to only record for 60 seconds.
Post-conditions: A .wav sound file will be saved onto the user's system. The user can then add the sound file they created anywhere into the story, correct, or incorrect text field.

Import Audio
Description: User imports an audio file into their story
Actor: User
Preconditions: <ol style="list-style-type: none"> 1) User has selected Create New Scenario or Edit Scenario in the opening window. 2) User has named the scenario and indicated the number of braille cells and answer buttons available. 3) User clicks the add sound button or uses the menu shortcut in the main Scenario Creator window.
Basic flow of events: <ol style="list-style-type: none"> 1) In the main Scenario Creator window, the user clicks the Add Sound button or uses the menu short cut. 2) The user selects the import sound option. 3) A file chooser window will pop up allowing users to select the sound file they want to import.
Exceptions: <ol style="list-style-type: none"> 1) If the user tries to import a file that does not have a .wav extension, the system will warn the user that only .wav files are excepted, and they are prompted to select another file from the file chooser.
Post-conditions: A .wav sound will be imported for use in the Scenario Creator. The user can then add the sound file they imported anywhere into the story, correct or incorrect text field.

GUI Audio Accessibility
Description: User can have audio descriptions of the GUI and actions they perform on the system.
Actor: User
Preconditions: The user needs to have a computer that has screen reader software enabled.
Basic flow of events: <ol style="list-style-type: none"> 1) User needs to enable the screen reader on their computer 2) For creating and editing scenarios, the audio accessibility function will already be enabled when the screen reader is on. 3) When the user chooses Test Scenario, they can select the Audio Player option to turn on the Audio Accessibility function.
Exceptions: <ol style="list-style-type: none"> 1) Audio accessibility will not be functional if the computer that is being used does not contain a screen reader program.
Post-conditions: The computer will use audio to describe what element of the GUI the user is focused on, along with the purpose of that component. The system will also tell users about actions that are taken.

Hot Keys
Description: User can use hot keys to quickly transverse through the different elements of the GUI and access functions of the system.
Actor: User
Preconditions: <ol style="list-style-type: none"> 1) User has selected Create New Scenario or Edit Scenario in the opening window. 2) User has named the scenario and indicated the number of braille cells and answer buttons available.
Basic flow of events: <ol style="list-style-type: none"> 1) Once in the main Scenario Creator window, users can quickly navigate between different elements in the GUI. They can also use hot keys (labeled in the menu) to quickly access commonly used functions.
Exceptions: N/A
Post-conditions: Users will be able to quickly navigate back and forth between different components of the GUI. They can also use hot keys to jump to a specific element in the GUI. Users can also use hot keys to access functions related to sound, sections and scenarios.

Logger
Description: The program creates a log of functions used and exceptions thrown
Actor: Program
Preconditions: <ol style="list-style-type: none"> 1) User has selected Create New Scenario or Edit Scenario in the opening window. 2) User has named the scenario and indicated the number of braille cells and answer buttons available.
Basic flow of events: <ol style="list-style-type: none"> 1) Once in the main Scenario Creator window, the system will automatically log key events and errors into a text file that is saved on the user's system.
Exceptions: N/A
Post-conditions: A text file containing a log for the key functions accessed and error messages is created