TalkBox Requirements Document

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Requirements:

1. Create a Configurator and Simulator App that can be used as a TalkBox device to helps anybody, who is unable to talk, communicate.

2. The Configurator App should be able communicate with the TalkBox device as well as the TalkBox Simulator.

3. The Configurator should allow users to modify buttons easily while navigating through the provided GUI. Also, the Configurator need to be user friendly.

4. The device must have several buttons based on user's needs. Each buttons should be able to pressed and have an image describe what is the button for. Once each button is pressed, there will sound playing according to the button.

5. The configurator should allow users to replace the sound for each button with their own recorded sound.

6. The configurator should allow users to change the images as well as the sound on the simulator.

7. The configurator as well as the simulator app should be able to store in a USB flash drive that can be used in an actual TalkBox device.

8. The configurator allows user to store multiple profiles, in which each profile has different sets of buttons with image and sound accordingly.

9. The Simulator allows user to swap between different Profiles they have created through the configurator.

10. For all the action that user does in the configurator and simulator will be stored as a log file.

11. There should be a TBCLog app that can display the users' log action, to demonstrate how the users use configurator and simulator app.

Acceptance Test Cases:

- Testing second requirement:

  - Test if the simulator works as well as the information generalized by the configurator works in the simulator app.

  - Test if the configurator can communicate with the actual TalBox device.

- Testing third requirement:

  - Testing the GUI by navigating through it and check whether it is responsive accordingly.

- Testing fourth and sixth requirement:

  - Check if uploaded images and sounds in the configurator match with the ones in the simulator.

  - Check also the valid format of images and sounds.

- Testing fifth requirement:

  - Make sure the number of buttons in the simulator is same as the number of buttons generated in the configurator.

- Testing seventh requirement:

  - This can be tested by installing the two configurator and simulator apps on different type of devices. (e.g. Windows, Linux, Mac, etc..)

- Testing eighth and ninth requirement:

- This can be tested by creating multiple profiles in the Configurator with images and sounds.

- Then open the Simulator, there should be multiple profiles, in which each profile has images and sounds buttons match with the buttons created in the Configurator. Also, the swap button should allow user to switch between profiles created.

- Testing tenth and eleventh requirement:

- This can be tested by using the configurator and the simulator. Then can open the TBCLog App to check whether the actions did in the configurator and the simulator match accordingly.