ANDROID DOCUMENTATION

Project Title - Talking Thermometer for Visually Impaired People.

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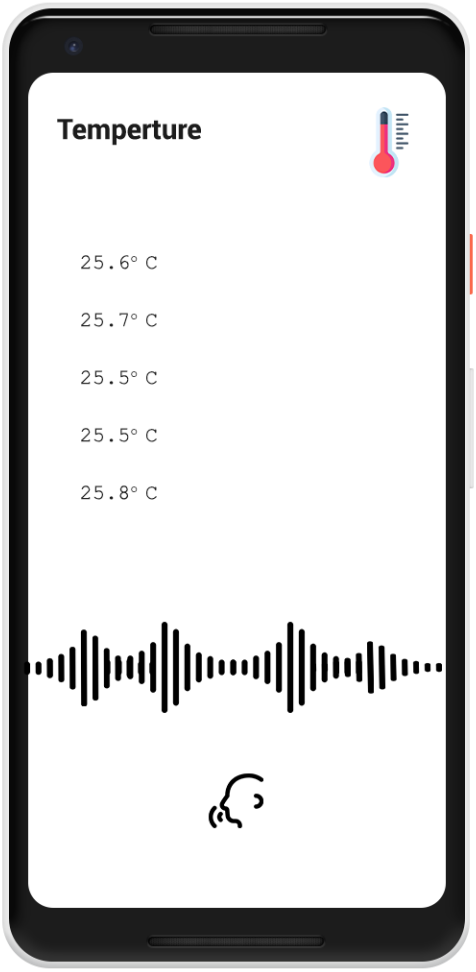
USER INTERFACE



Include wireframes for each page, with detailed descriptions of:

1. Initially, starting with ideation & designing the layout for the

functionality, we will write codes in XML.

2. All the actions and functionalities described in the wireframes displayed in this documentation.
3. Mockup will be previewed at the development process.
    - Each control, including states (enabled/disabled/highlighted) and operations.
    - Supported orientations and transitions between them.
    - Functionality represented.
    - Error handling.
    - Dimensions and constraints.

SOFTWARE SPECIFICATION

We include the software specification with detailed process below:

1. Framing the code in the MainActivity.java which contains functionality of the application.

2. Begins with `android.hardware.usb` package which Represents an interface of a USB device, which defines a set of functionality for the device. A device can have one or more interfaces on which to communicate. `USB request` represents an interface of a USB device. A device can have one or more interfaces on which to communicate in which `UsbDeviceConnection` represents a connection to the device, which transfers data on endpoints. This class allows you to send data back and forth synchronously or asynchronously.

3. Main importance for above details which represents Host API interfacing the Android-powered device to an enumerates connected USB devices.

4. Setting up the manifest and resource files for the protocol related codes for interfacing the android and USB devices.

5. Make an Overview of DigiCDC library enables the USB CDC Serial port communicate with Android USB drivers.

6. V-USB is a firmware for USB Drivers and microcontrollers which supports multiple endpoints with interrupts, memory, Clock speed, transfer bytes.

7. So, we start with V-USB and configuring with the ATtiny85 running its serial data and testing the serial data which has to be interfaced with the COM PORT.

8. Demonstration will be at your view after testing & experimenting the steps mentioned above.

9. Finally, when we reaching the goals, move on with CORDOVA for developing android application which is compatible with all devices.

10. Further TextToSpeech and hosting detail will be intimated after completion of interfacing android device with ATtiny85.

MILESTONES

As described below, deadlines for completion and expected deliverables.

1. Façade Application with COM PORT interface with USB OTG & ATtiny85 to be shown on first meet.

2. Displaying the Serial data from ATtiny85 on the Android device as achieved as Functional Milestone.

3. Alpha Application (Developed Application with full functionality).

4. Testing the Stability for all compatible android devices.

5. Release.