My role in the Tooltips project was basic app functionality. I took everyone’s design ideas and research and implemented them into our app.

To make the app, I had to use Kivy, a Python framework used to make apps. I could not compile the app into an android APK on Windows, so I had to use VirtualBox to run Ubuntu. In the Ubuntu terminal, I used pip to install Kivy, Python, Buildozer, and other software I needed. I followed kivy.org’s instructions, but when making the APK it encountered many errors. I turned to stackoverflow.com, linuxconfig.org, digitalocean.com, and github.com to figure out all the things I needed. After I got Buildozer working, I used OneDrive to transfer the app files from my PC to Ubuntu.

The first thing needed to run Tooltips is PyCharm. This is how I wrote, compiled, and ran the code. Managing the app can be done with just Python, though. The next thing needed is Kivy. I used Kivy to test the code from PyCharm rather than compiling it into an app, downloading it, and looking at it on my phone. The last thing needed is a Linux distribution. Kivy has no way to make an android APK in Windows. Kivy.org says it can only be done with a Linux distribution.

One technical difficulty with the app is that the Accordions are not sized dynamically. The Accordion widgets that hold all the text only allowed me to set one size for all AccordionItems. I had to take the size that fit the biggest block of text and use that same size for all the others. The AccordionItems that hold small blocks of text are too big and it looks awkward. Another technical difficulty is the fact that some images are incompatible with a dark theme. I did not have time to give all the images transparent backgrounds, so if one wants to add a dark theme later, the white box surrounding some of the images would stand out. The last pitfall is that there is no iOS apk. I did not have a Mac, so I could not make an iOS version of the app.