DendroDoggie - An app to read data from a TOMST dendrometer

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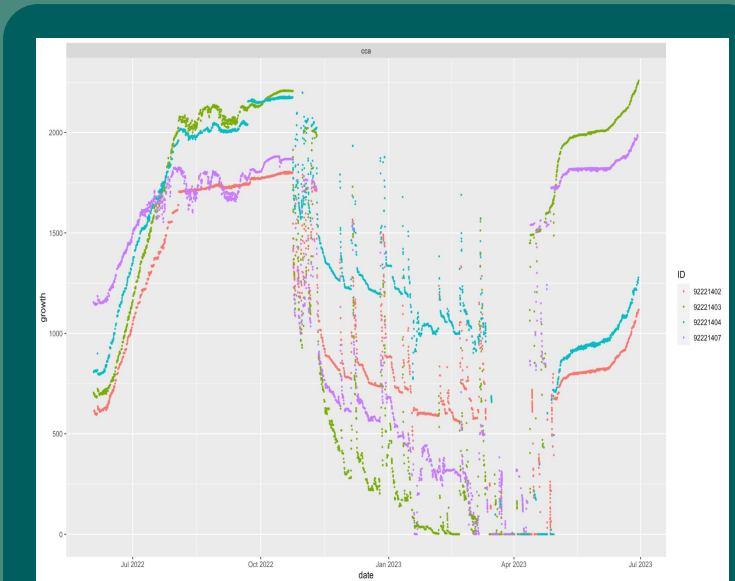DENDRO-DAWGZ
| GROWING A BRIGHTER FUTURE |

What is the Problem?

- Need to bring a laptop up a Redwood
- Two handed use, with a long download
- Can only view one set of data at a time
- Difficult to share data with others

Solution Review

Develop a mobile application
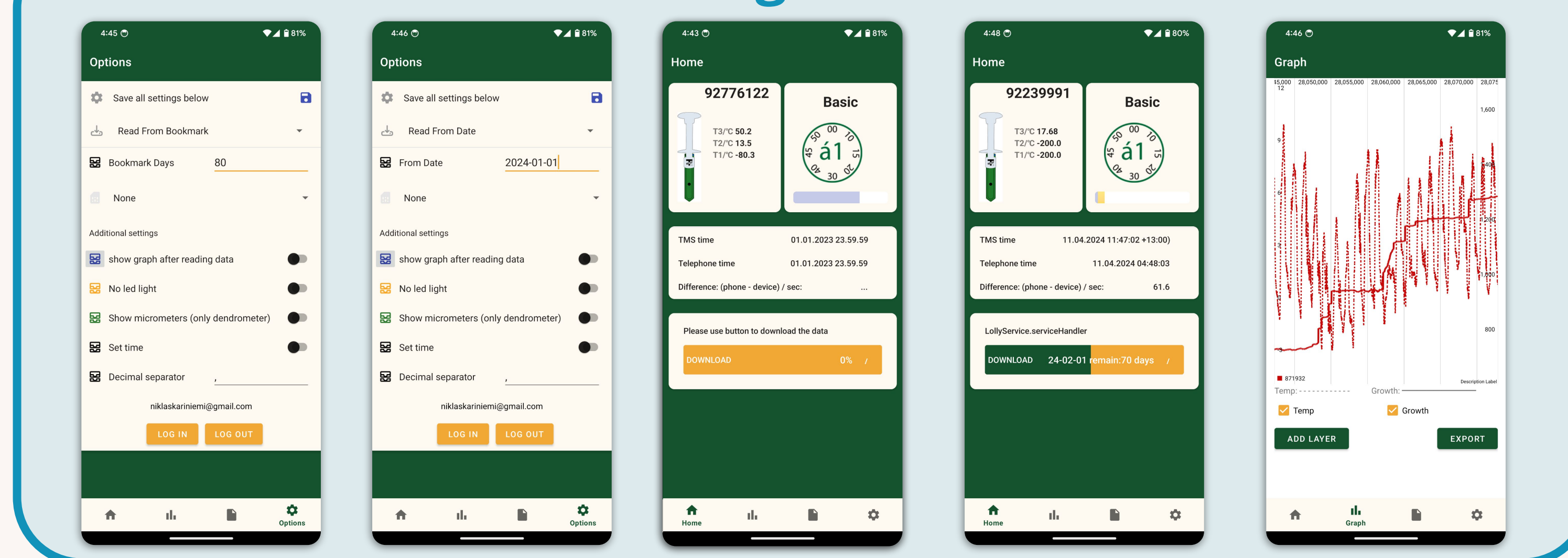- One handed, safer and cheaper

Several dendrometers, trees, or sites at a time
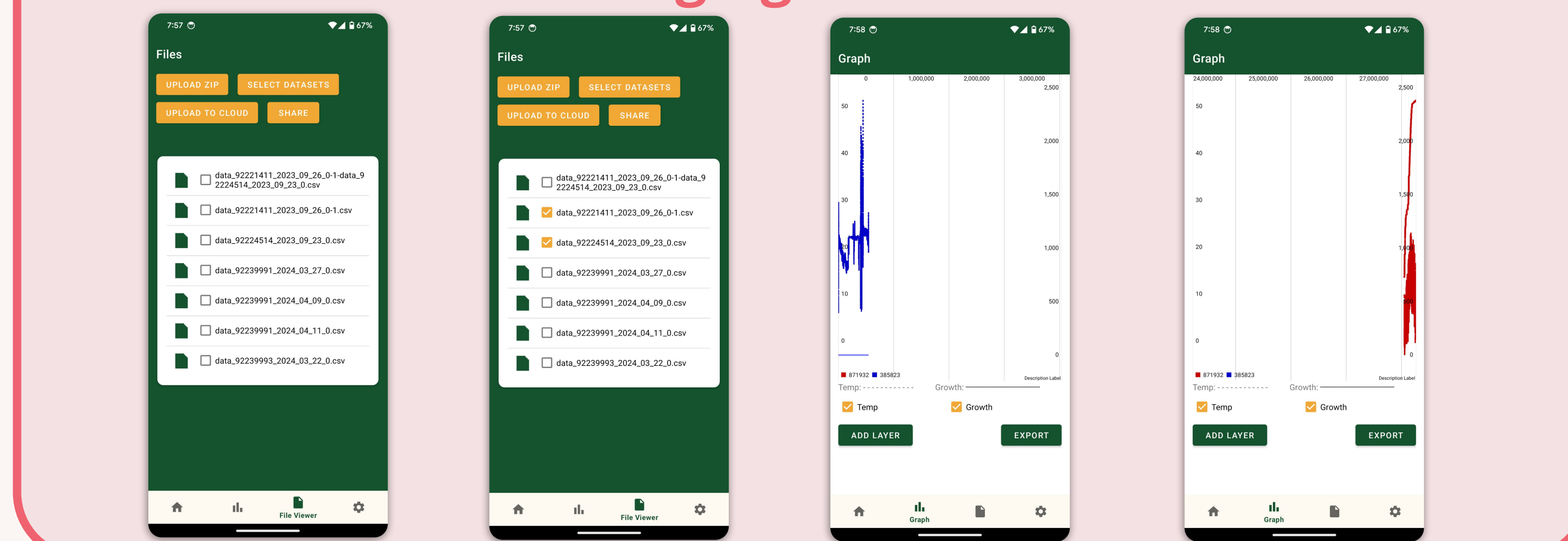- Interactive graphs
- Comprehensive data

Export data to the cloud
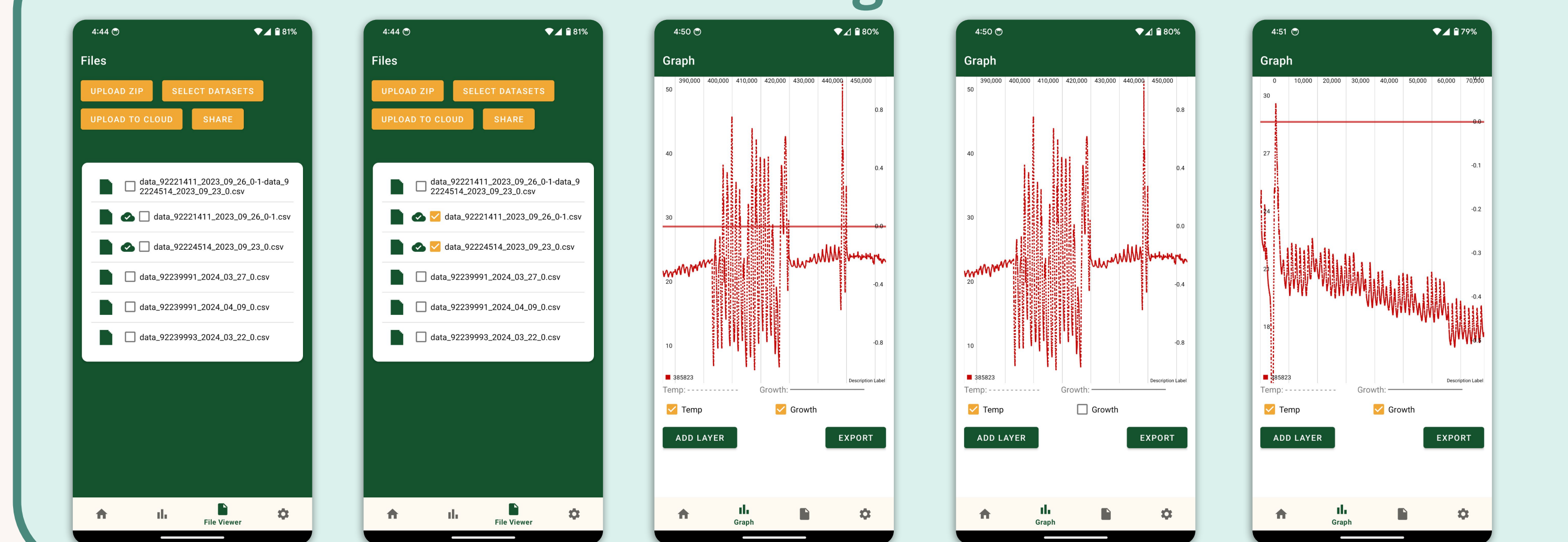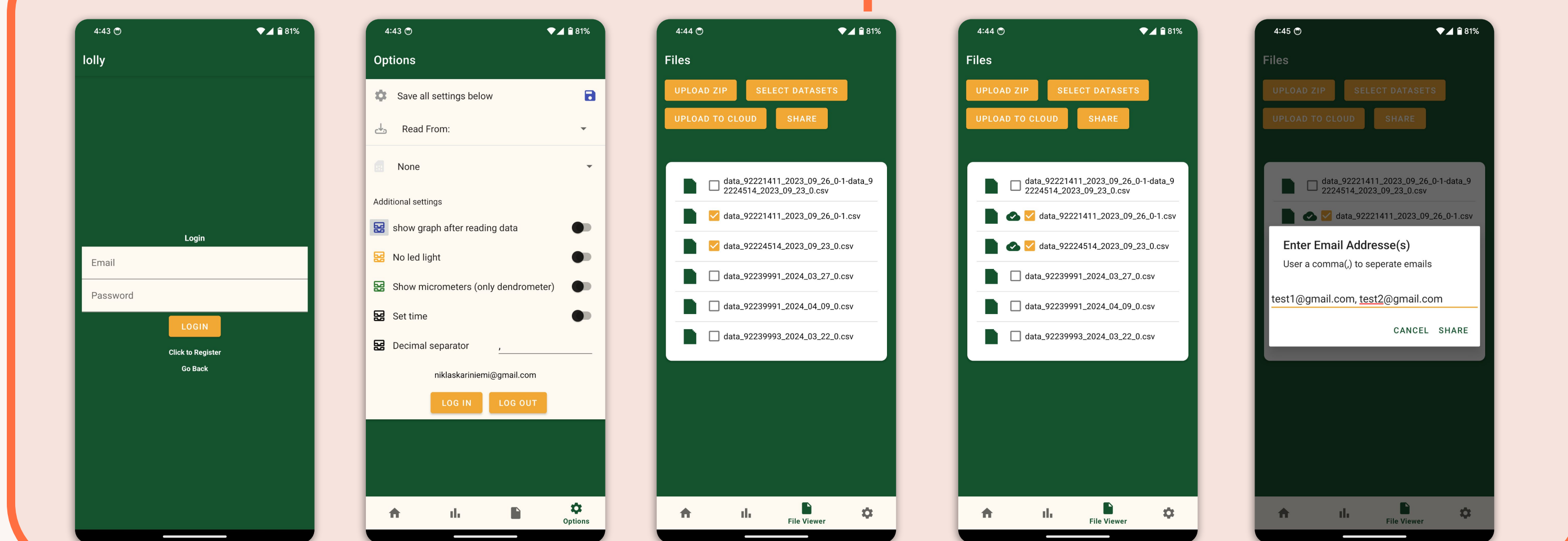- Easy data and file sharing
- Viewable from anywhere

Firebase

Reading in Data

Merging datasets

Visualizing data

Cloud export

Implementation

Frontend: Java
- Future proof
- Easy to develop Android apps

Backend: C
- Large community of developers
- Allows access to low-level systems

Cloud Export: Firebase
- Powerful cloud platform
- Easy to implement

Graph Display: MPAndroidChart
- Large variety of charting options
- Allows customization of graphs

Technologies