Goal

- To create a single device that provides the user with improved data processing and external storage via Bluetooth, therefore maintaining the user's privacy without using any of the user's data plan.

Methodology

- 1. Import library on android app
- 2. Send data to be stored/computed via bluetooth to master RPI (~3MB/s or 25MB/s)
- 3. Distribute workload amongst RPIs (via USBs) from master RPI (python server) (60MB/s to 5GB/s)
- 4. Send work back to master RPI
- 5. Send result/data back to library
- 6. Android app has result/data

Motivations and Objectives

- Motivations
  - Make data plan usage more efficient
  - Enhance privacy on mobile device
- Objectives
  - Design/Implement transfer protocol
  - Write python server for raspberry pis
  - Write android java library

Research Challenges

- Data sending and receiving
- Achieving speedup on computations
- Reliable data transfer protocol design

Results

Computational speedup is not very feasible with a raspberry pi since the cpu speed is very comparable to that of an android phone. We have changed our main motive to provide external bluetooth storage because of it.

References