Team Members/Role: Max Garton - Meeting Lead, Arnoldo Montoya-Gamez - Deadline Manager, Ethan Shoemaker - Issue Tracker, Karla Montoya - Testing Specialist, Jesrik Gomez - Public Relations, Nate Wernimont - Meeting Scribe

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Weekly Summary

This week, the team began developing individual components of the design that was created during the previous semester. These individual components include a weight sensor to measure the amount of a household item, a software process that allows a user to set up a weight sensor (attached to a raspberry pi), an Android application that acts as a user interface (providing home inventory, shopping list, and shopping recommendation views), and the backend services (that store and provide data for different components).

Past Accomplishments

Accomplishments during 1/31/20 - 2/14/20:
- Developed process to add raspberry pi to user's wifi network (Max)
- Developed basis of data sensing daemon (Ethan)
- Partial functionality of users service (Nate)
- Set up relational database on cloud computing platform
- Created skeleton Android project with package structure and boilerplate classes (Arnoldo)
- Developed Android networking strategy & diagram (Karla)

Pending Issues

- Max Garton: RPi software system architecture design w/ Ethan
- Arnoldo Montoya-Gamez: N/A
- Ethan Shoemaker: RPi software system architecture design w/ Max
- Karla Montoya: Activity list functionality
- Jesrik Gomez: N/A
- Nate Wernimont: N/A

Individual Contributions

Arnoldo:
- Update Android Tasks needed for first demo
- Created Skeleton Android Project
- Created Android Data Controllers for Shop and Login Activities

Ethan:
- Tested weight sensor w/ sample code found online
- Data sensing program - calibrated to within ~1gram
  - Recording values to a file
- Daemonization of the sensing script

Jesrik:
- Set up relational database on Microsoft Azure
- Created database schema for system services

Karla:

- Collaborated to break down Android implementation tasks needed for the first demo.
- Worked on shopping list Android activity.
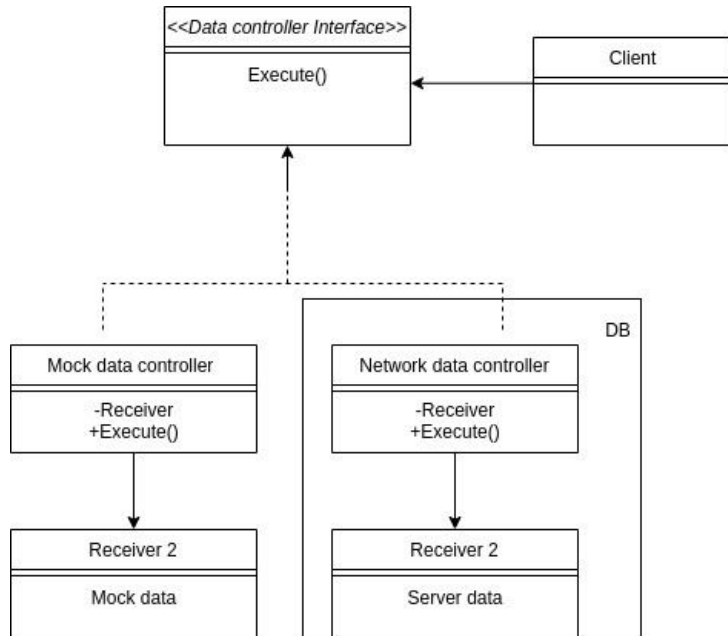
This design is open for extension and close for modification to create modular flexible software and more importantly meet specific requirements. Object-oriented design principles and guidelines are being applied throughout the design, for instance by implementing interfacing through polymorphous and introducing different levels of abstraction.

Max:
- Developed process to add raspberry pi to user's wifi network
    - Android application to communicate with raspberry pi via wifi socket
    - Python program to create a wifi access point on raspberry pi
    - Python program to switch between wifi access point and wifi consumer mode on raspberry pi
    - Python program to add a user's wifi credentials to the raspberry pi from an android device

Nate:
- Wrote the code for the users backend service
- Began unit testing the users backend service
- Stubbed out the sensors service

Name	Individual Contributions (Quick list of contributions. This should be short.)	Hours This Week	Cumulative Hours
Arnoldo	-Update Android Tasks needed for first demo -Create Skeleton Android Project -Created Android Data Controllers for Shop and Login Activities	10	57

Ethan	Data sensing program, weight sensor	10	54
Jesrik	Set up relational database on Microsoft Azure and implemented schema	10	51
Karla	Implementation design and basic activities	15	54
Max	Developed process to add raspberry pi to user's wifi network	14	77
Nate	Partial functionality of users service, started sensors service	5	45

Plans for Next Week

- **Max:** Change raspberry pi setup code to use bluetooth socket with android phone instead of Wifi socket. Further develop commands from android phone to pi.
- **Arnoldo:** Create Shop Activity and establish frameworks used for passing objects between client and server.
- **Ethan:** Allow for calibration after setup, discuss design of software for RPi, allow for on demand sampling, (maybe) research low power mode for RPi
- **Nate:** Finish testing users service. Write the sensors backend service.
- **Karla:** Work on one third of the interface and mock data controller and, complete the list activity functionality to continue from there with the rest of activities.
- **Jesrik:** Start populating the database with mock data, and implement sensors service.

Summary of Weekly Adviser Meeting

In our meeting with Goce on 2/10, we discussed the need for specific test cases (or acceptance criteria) for each component of the system. For example, the acceptance criteria for the inventory sensor setup process is that the user has successfully connected the raspberry pi to their wifi network, configured the sensor (given it a name and associated it with an item that they want to measure), and calibrated the weights (an empty and full weight set by the user). With each feature or functionality that is added, we need to ensure that we have clear acceptance criteria and a detailed test plan to ensure that it is working properly.