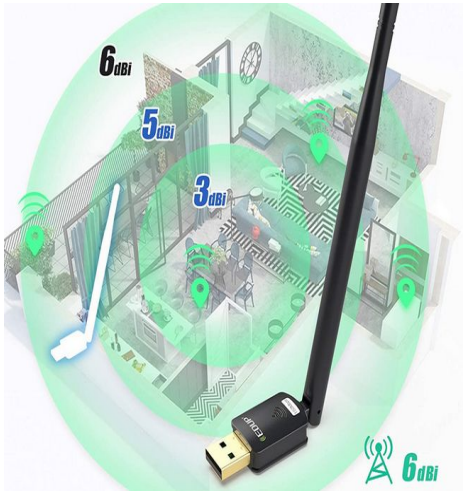
Team: ASPC Root

Members: Ayden Martin,David Cowles,
Logan Crowe, Trevor Hamilton

Project Summary:

Building a prototype server that acts as the root node for a mesh network, will be used as an intermediary to PLEX servers and will keep a database of information received from leaf nodes to compute factors such as waste, production rate, etc.

Problems encountered (and a solution)



Our team has encountered one major problem so far and that is not having access to the PLEX developer portal, this means we are unable to use the PLEX API until we can get an account.

One minor problem is that our Raspberry Pi do not have wifi capability, to solve this issue Logan has found a wifi dongle. This will be important because wifi is needed to implement the mesh network.

Intended vs Actual progress: Trevor

Intended Progress

- Add keyword parameters to CRUD methods to allow for more flexibility
- Improve error handling and return any database errors that occur
- Add workstation table
- Add instance-based databases that can store file paths and an initialization flag

Actual Progress

- Finished all goals for the sprint

Intended vs Actual progress: David

Intended Progress

- Research Wifi Direct as a consideration for communication with branch&leaf
- Set up test communication between pi devices to simulate communication with branch&leaf

Actual Progress

- Made some progress setting up wifi direct. Realised that we will need to find a workaround to be connected with the mesh network via wifi direct and still make PLEX api calls. Expected to continue into next sprint

Intended vs Actual progress: Logan

Intended:	**Actual:**
Setup and test all hardware	Tested basic LAN functionality
Test LAN capabilities of OS	Acquired and tested additional hardware

Issues:
No native wifi capability with Pi
Ubuntu Raspberry Pi Server vs Ubuntu Raspberry Pi vanilla OS

Intended vs Actual progress: Ayden

Intended Progress:

- Test database on raspberry pi
- Test client-server connection on raspberry pi

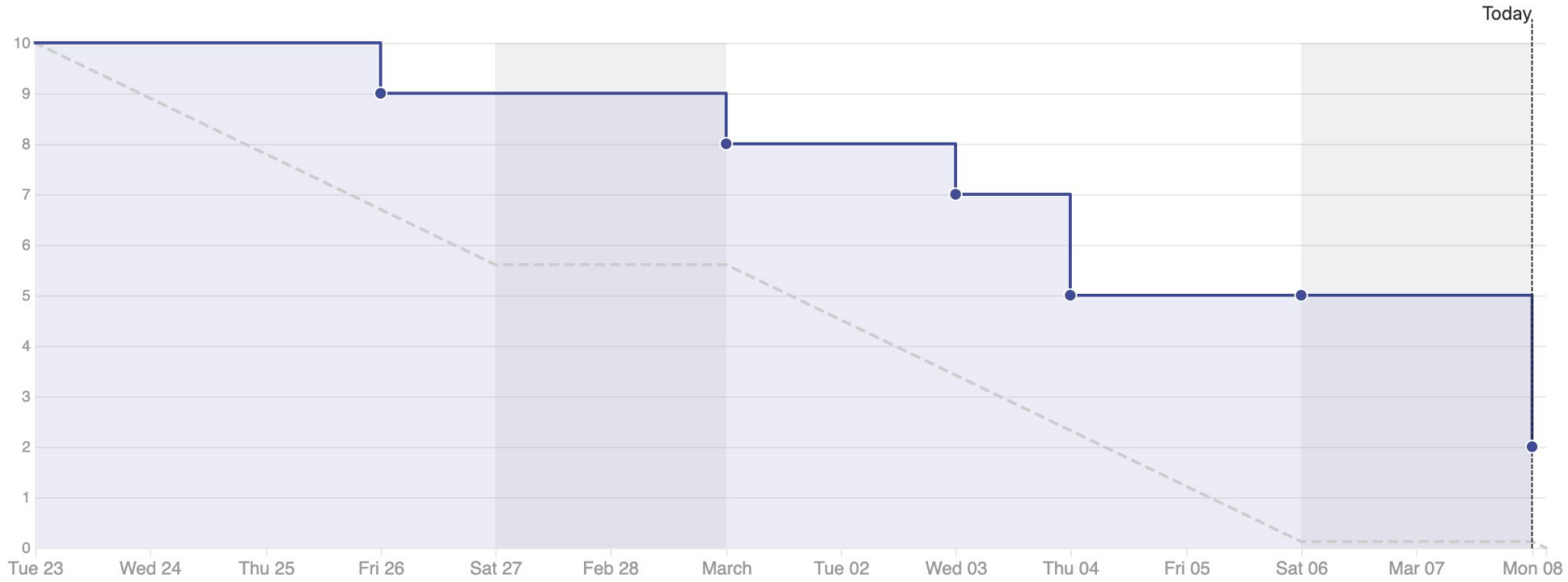
Actual Progress:

- Completed both goals

Burndown report

Export to CSV

Weekends | Ideal | Completed



Story Points — 80%

Completed	Remaining	Total
8	2	10

Issues and Pull Requests — 88%

Completed	Remaining	Total
7	1	8

Sprint 3-4 Projected Progress

- Get API Key (Pending)
- Access PLEX Developer portal (Pending)
  - Begin writing api calls
- Setup and test communication with Branch and Leaf
  - Wifi Communication between pi_2 & test server + wifi direct connection between pi_1 & pi_2
- Code better server to database functionality
- If still waiting for API access:
  - Begin brainstorming an interface for the client to facilitate network setup and testing
    - Client mentioned wanting email updates: work on automated emails
  - Try to get a demo of the physical plex kiosk to see exactly what data is being entered manually
  - Increase involvement with Branch & Leaf to ensure a prototype mesh network is up and running within the next couple of sprints.

Questions?