Project Description – Cluster Computing using Raspberry Pi

Project Goal – To run a website using Raspberry pi and Drupal/Wordpress. Our immediate goal is to download Ansible on our first pi which would later be our master pi. From that pi would be able to control all the rest of the pi.

Project Implementation - The first part of the plan to implement our cluster computing project was to download ansible and get our first pi set up as the master pi. From there, we could use ansible to set up our other pi (at least 3 others) in a cluster and work on running a website from the cluster,

Components - The first component of the project is downloading Ansible on one of our pi's.

The second component of the project is to use ansible to actually connect all of our pi together.

The third component, once we have the cluster set up, will be to use the cluster to run a website created through either Drupal or Wordpress.

Thus far, we have only finished the first component because we had trouble running the Ansible playbook on our Pi once it was set up. Ansible is the only software used thus far (we have not started implementing the website with Drupal or Wordpress) and the only hardware we've used is one Pi because we just attempted to get the one Pi working and set up (the Pi which will be out master pi).

Summary - Overall, Ansible has proven to be tougher to get working than we expected. It took us several hours of modifying some of the files we downloaded from GeerlingGuy to get up to the point where we could run a playbook, but that failed as well because we didn't have a .php file we needed. We wouldn't really say anything has been easy thus far, all we've really had to do up to this point was install Ansible and run a playbook. The installation of Ansible was definitely less challenging than running the playbook which we still haven't been able to resolve. The only bad aspect is that Ansible hasn't been as simple to install and use as we thought it would be.

Upcoming Goals - Our immediate goal is to get a playbook working for Ansible but we also installed alternate software to create a cluster of pi's and we might just use that if Ansible still gives us problems. After we get either software working as we need it to, we will actually create the cluster of pi's and then get to work on the final component which is setting up the website which will be run with the cluster.

Group Members - Amitoz and Michael
Both of us worked together on getting Ansible downloaded on our pi and running the playbook provided by GeerlingGuy. We encountered several problems as mentioned above which were mostly solved by Amitoz. Amitoz found the new method for cluster computing (the new software) which Michael installed on the pi.

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