About the Project

The Raspberry Pi is a marvel of modern computing. This credit card sized microprocessor offers full fledged computing power on-the-go. Raspberry Pis have been used for a variety of purposes including but not limited to gaming emulation and cluster computing. For our project however, we shall try to run Hadoop on a Raspberry Pi. We will run Hadoop on a single Raspberry Pi 2 and figure out what hurdles we might be facing. Once the setup process is done on a single Pi, we shall try to scale the process to a cluster of Pis. Our current setup is 1 x Raspberry Pi 2, Model B, 1x32 GB Class 10 MicroSD card. Our version of the Raspberry Pi has a dual core ARMv8 processor with 1 GB of RAM. We would be using a lite version of the Raspbian OS on the Pi.

Equipment Utilized

* Raspberry Pi 2 Model B
* Samsung Class 10 32GB MicroSD Card
* Dell KM113 Bluetooth Keyboard and Mouse
* Acer H236HL Monitor
* 2 AMPs Power Plug
* Micro USB Cable
* HDMI Cable
* Ethernet Cable
* Network Router

Prerequisites

* Download Raspbian Jessie Lite from https://www.raspberrypi.org/downloads/raspbian/
* Format your micro SD card into fat32
* Use the SDFormatter program
* Enable 'format size adjustment'
* Extract the .zip of Raspbian Jessie Lite
* Install the .img file onto your clean micro SD card
* Use Win32DiskImager
* You can now use the micro SD card to boot into Raspbian
* Boot into Raspbian
* Gain root access

We have provided a Readme file with the order of the scripts to be run after finishing the prerequisites.

Complete steps present at <https://pimagic.wordpress.com>

References:

http://www.widriksson.com/raspberry-pi-hadoop-cluster/

http://www.widriksson.com/raspberry-pi-2-hadoop-2-cluster/

https://www.raspberrypi.org/forums/viewtopic.php?f=66&t=133691

https://en.wikipedia.org/wiki/Raspberry\_Pi

http://www.informit.com/articles/article.aspx?p=2190194&seqNum=3