1. Download VirtualBox from Oracle Website
   https://www.virtualbox.org/wiki/Downloads
2. Install Oracle VirtualBox like any other software.
3. Download Ubuntu Desktop Image from the following URL
   http://www.ubuntu.com/download
4. Use the instructions in the below link to setup Ubuntu in VirtuaBox
   http://www.wikihow.com/Install-Ubuntu-on-VirtualBox
5. After Installation try to installing Ubuntu, open Terminal and execute the following operations
   a. Login as root user using the command – "su root"
   b. # sudo apt-get update
   c. Install Java in Ubuntu
      # sudo add-apt-repository ppa:webupd8team/java
      # sudo apt-get update
      # sudo apt-get install oracle-java7-installer
   d. Set Java environment variable
      # vi /etc/environment

      Paste the following line in that document
      export JAVA_HOME=/usr/lib/jvm/java-7-oracle

      Press ESC key and type the following command to save the file in VI Editor
      :wq

6. Download the latest Spark version 1.3.0 using the following command
   a. wget http://www.apache.org/dyn/closer.cgi/spark/spark-1.3.0/spark-1.3.0.tgz
   b. extract the file using the following command
      # tar zvfx spark-1.3.0.tgz
   c. get inside the extracted folder using the following command
      # cd spark-1.3.0
   d. execute the following command
      sbt/sbt -Dhadoop.version=2.6.0 -Pyarn assembly
   e. If you run out of memory issue, type the following command in command prompt
      # export _JAVA_OPTIONS='-Xmx1024m'

   Note: if you run into any problem refer to the official documentation for more help using the
   following URL: http://spark.apache.org/docs/1.3.0/

   f. After installation get inside "bin" folder and type the following command to crate spark-
      env.sh
      # cd bin/
      # cp spark-env.sh.template spark-env.sh
      # vi spark-env.sh

      Paste the following lines of code at the end of the file
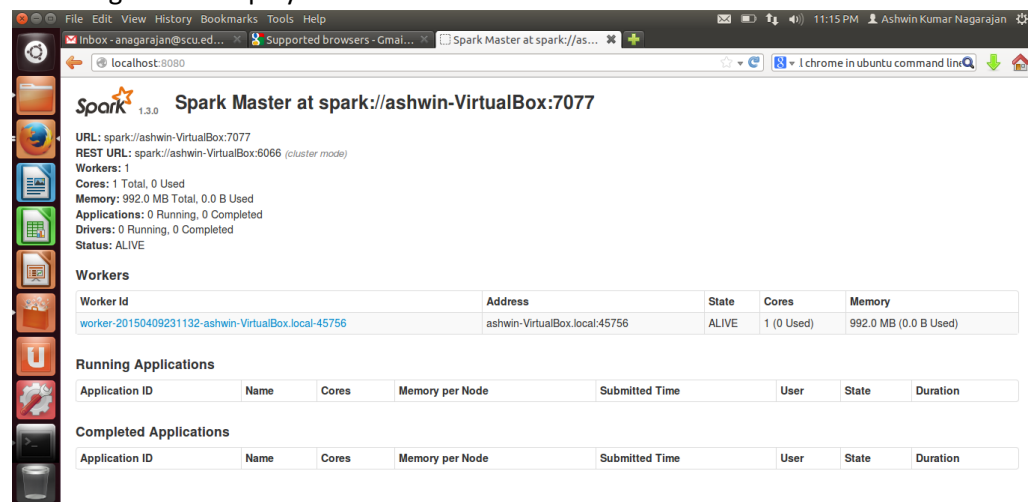   export SPARK_ROOT_DIR=/Users/mparsian/spark-1.3.0

```
export SPARK_WORKER_INSTANCES=1
export SPARK_WORKER_MEMORY=2g
export SPARK_WORKER_CORES=2
export SPARK_WORKER_DIR=$SPARK_ROOT_DIR/work
export SPARK_DAEMON_MEMORY=2048m
export SPARK_HOME=$SPARK_ROOT_DIR
export PYSPARK_PYTHON=/usr/bin/python2.6

export SPARK_MASTER_IP=localhost
export JAVA_HOME=/usr/lib/jvm/java-7-oracle
```

   g. Now goto "sbin" folder and execute the following commands
```
# ./stop-all.sh
# ./start-all.sh
```

Note: if you run into any issues with SSH, please install SSH using the instructions in following URL | https://help.ubuntu.com/community/SSH/OpenSSH/Configuring

   h. Goto to Mozilla or any web browser and type "**localhost:8080**" and you should get the following screen displayed

7. To remove logging in pyspark, execute the following command.
   a. Get into "conf" folder
```
# cp log4j.properties.template log4j.properties
# vi log4j.properties
```

Change
log4j.rootCategory = INFO, console
to
log4j.rootCategory = ERROR, console

8. That's all Folks! You are done … enjoy.