**Maharishi University of Management**

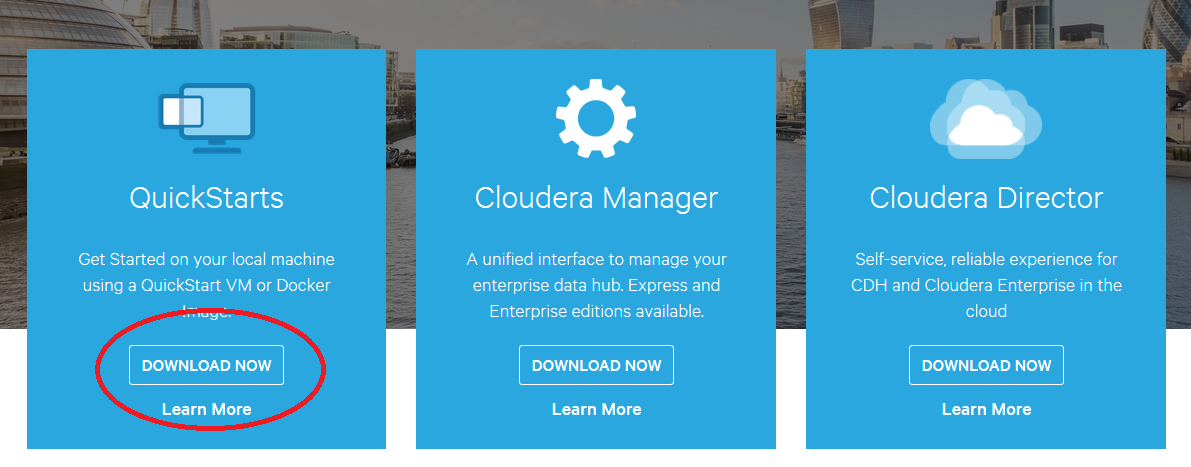
**CS522 – Big Data**

**Dr. Premchand Nair**

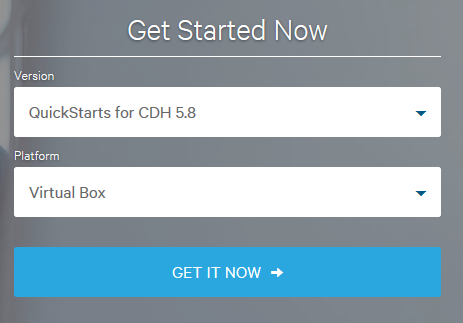
**Set Up a Single Node Cluster**

1. **Download Cloudera**

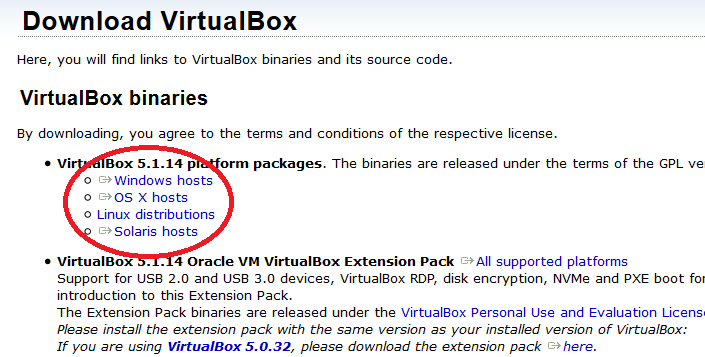
* Go to <http://www.cloudera.com/downloads.html>

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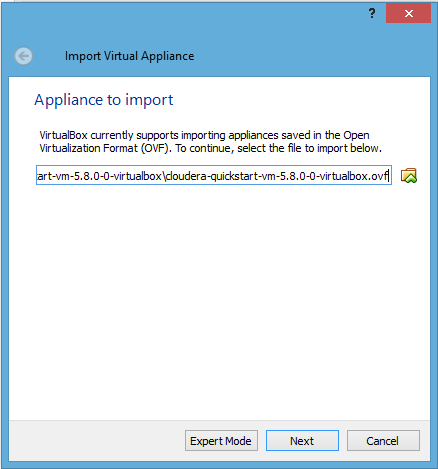
* Choose version and platform as image below

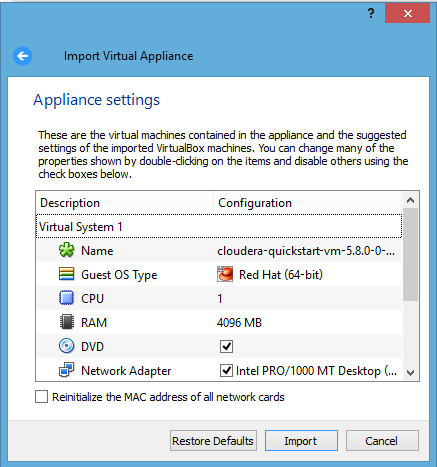
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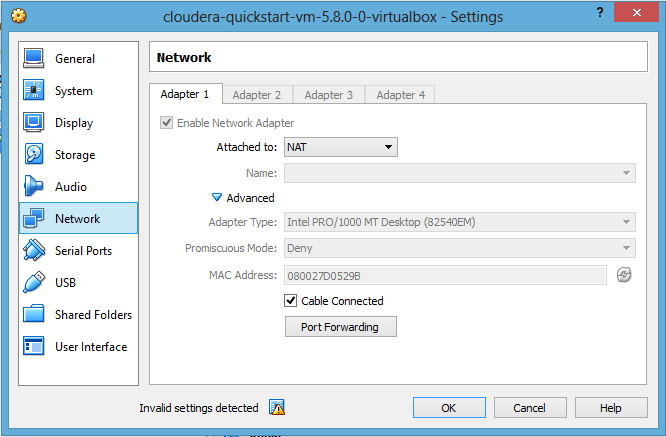
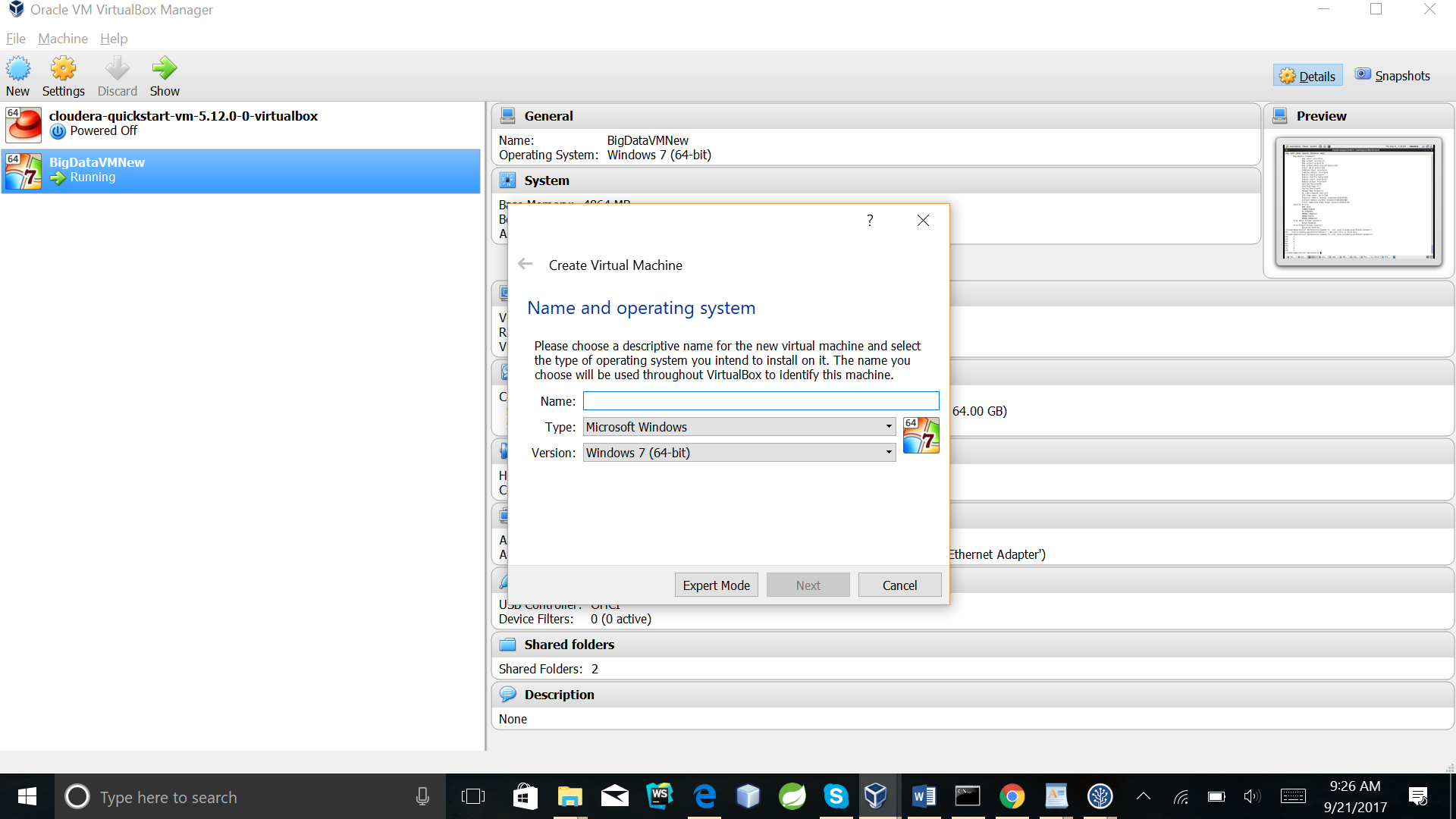
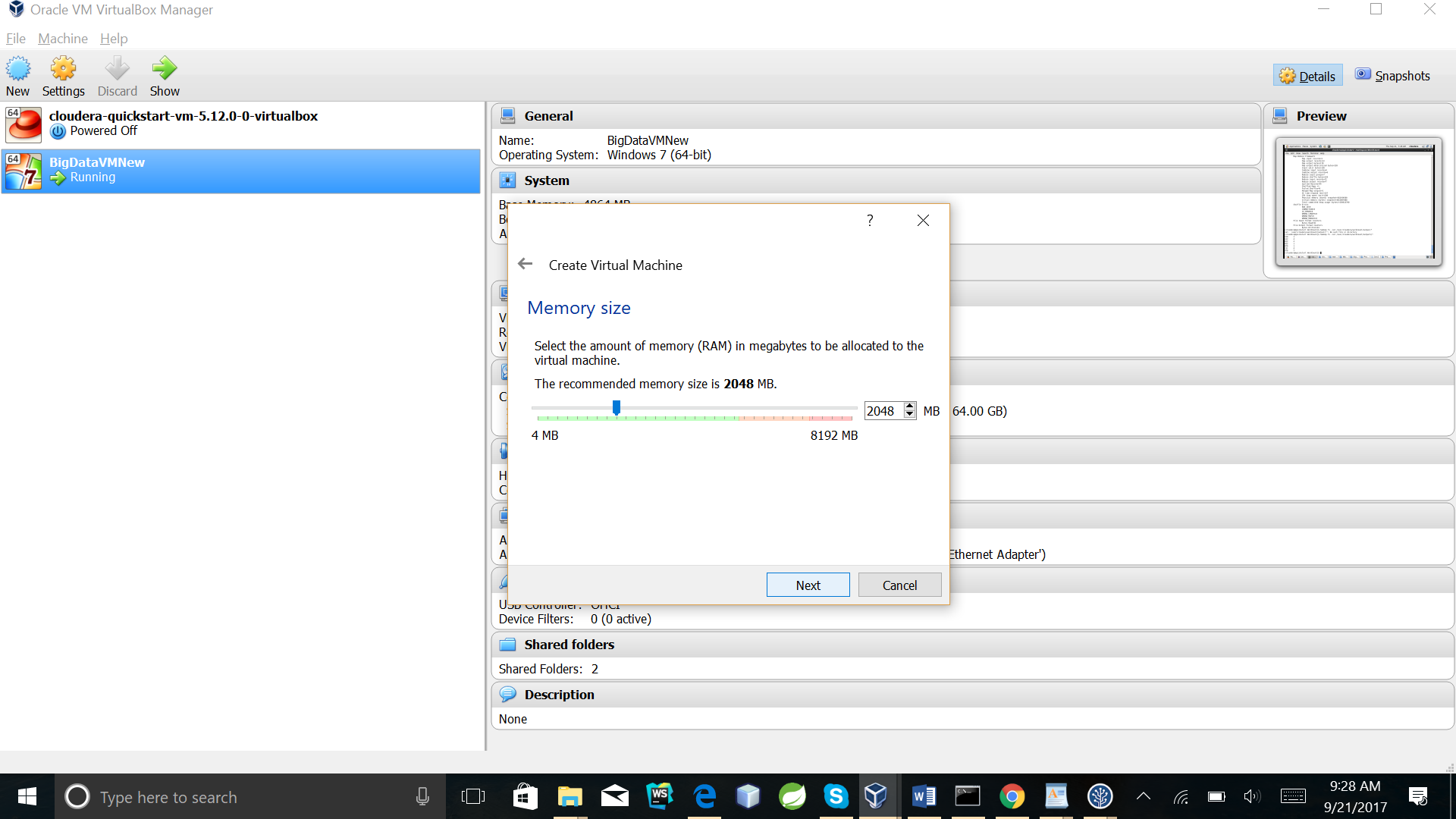
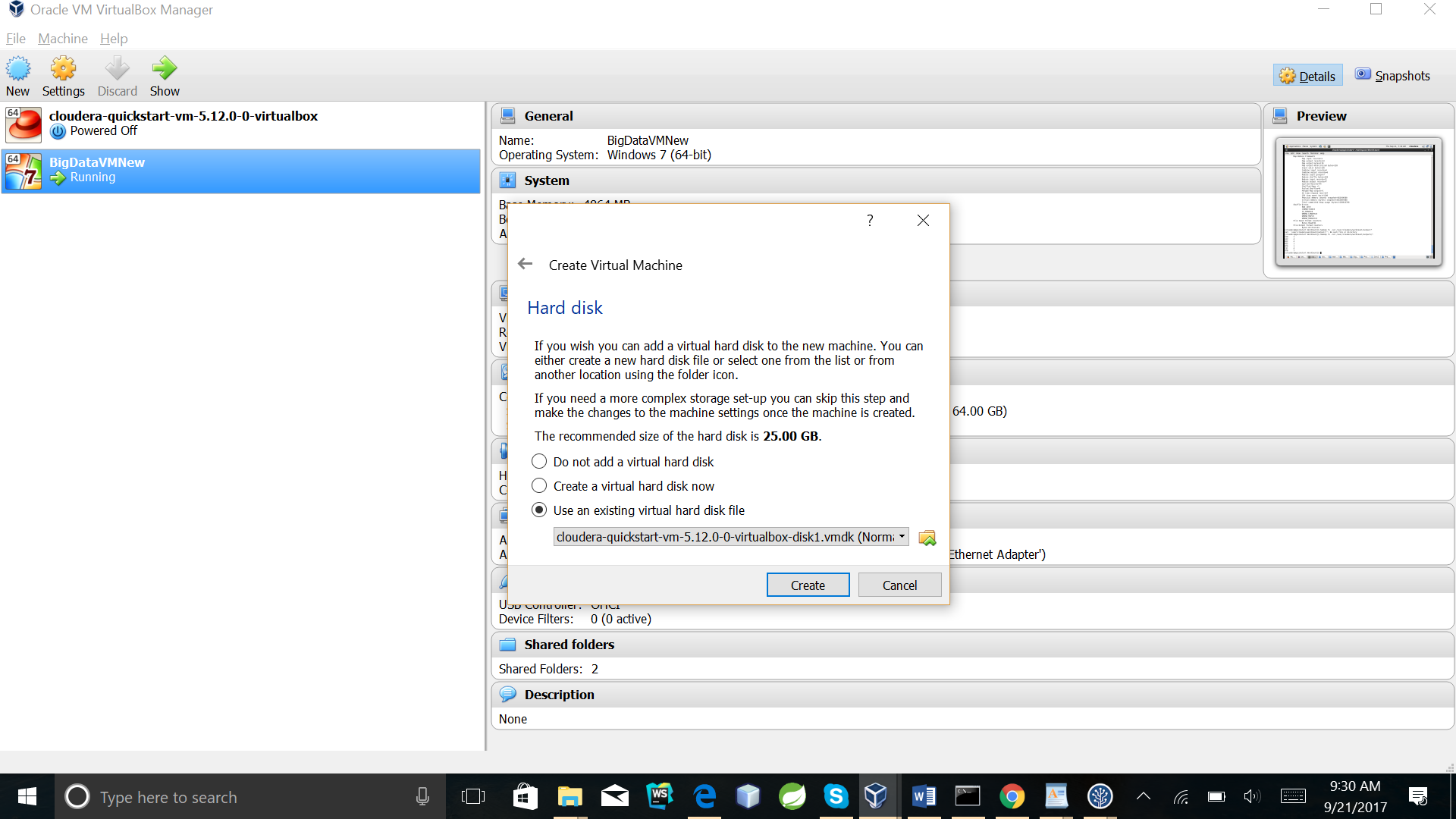
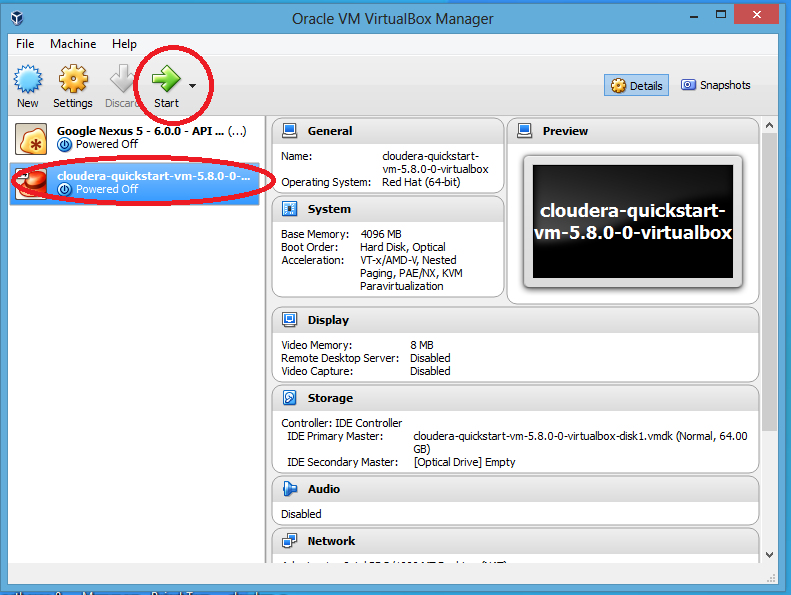
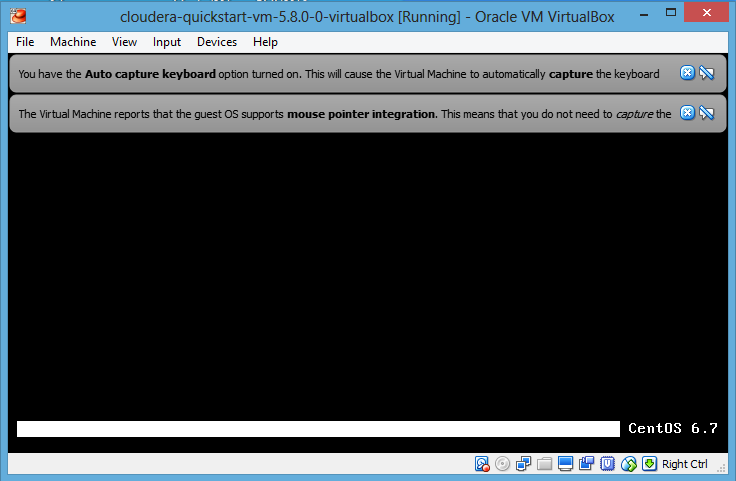
* **Download Virtual Box from** [**https://www.virtualbox.org/wiki/Downloads**](https://www.virtualbox.org/wiki/Downloads)

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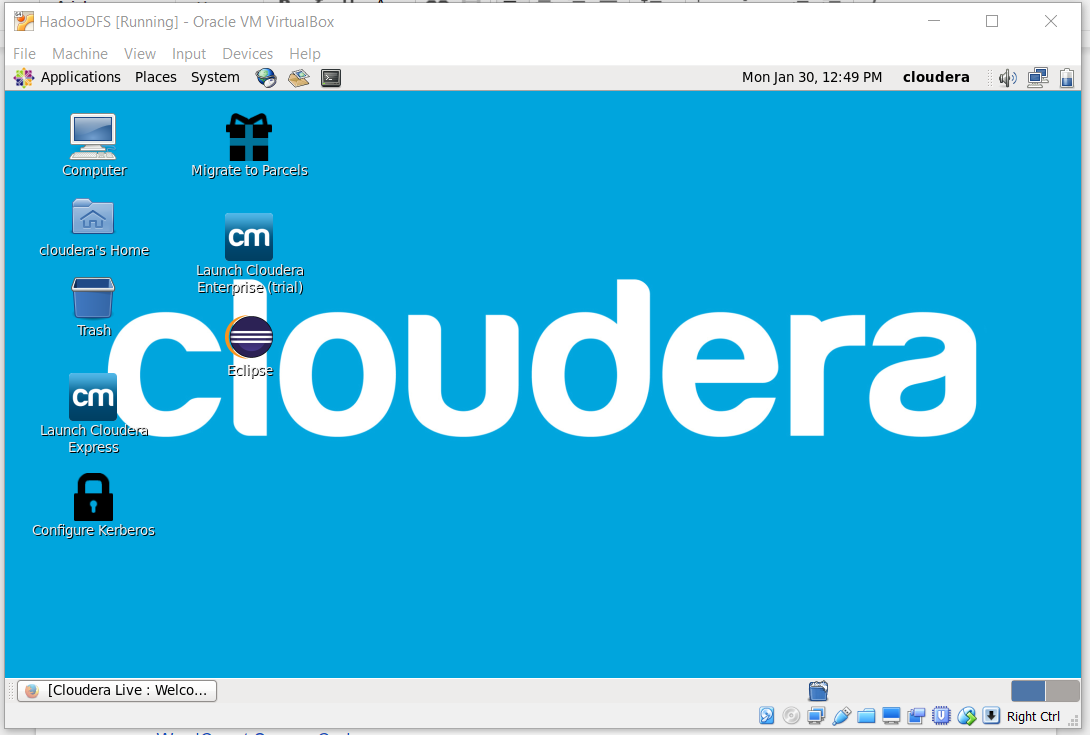
* **Click on File > Import Appliance**

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* **To enable network access go to Machine > Settings > Network and choose NAT in Attached to option as below**
* **Click on new, enter the name of virtual machine**
* 
* **Determine how many memories the VM can use**
* 
* **Choose use an existing virtual hard disk file**
* 
* **Now start cloudera by clicking start button**
* 

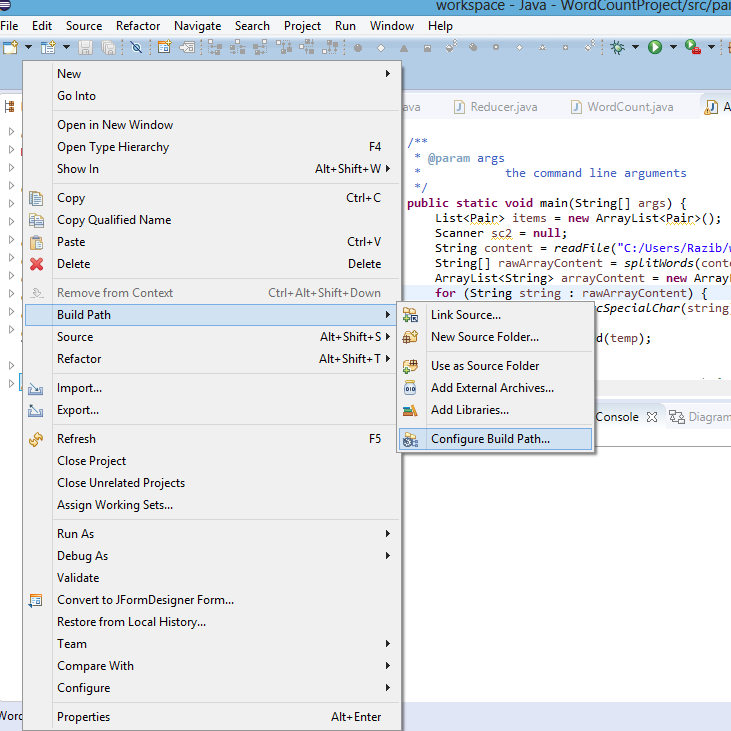
1. **Desktop will look like below**

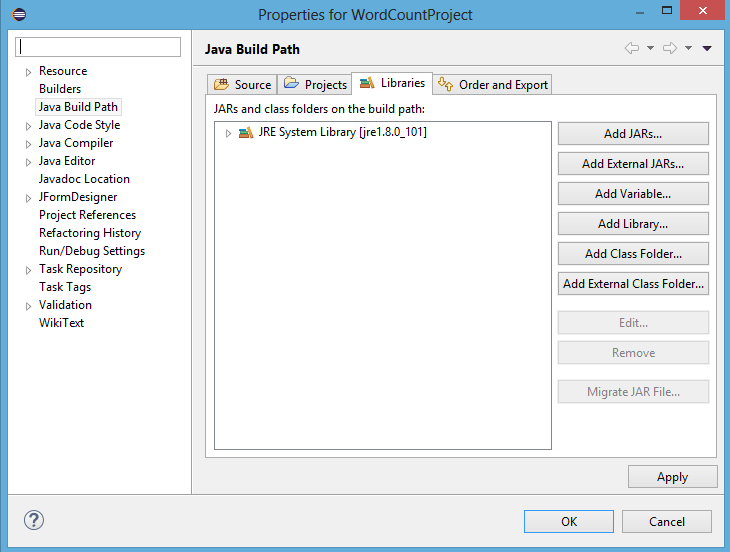


* **Open eclipse and start new project**
* **Download hadoop common and hadoop mapreduce client core from below link**

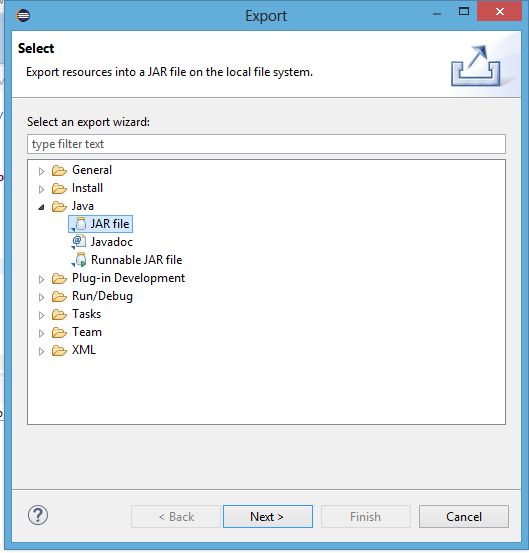
<http://mvnrepository.com/artifact/org.apache.hadoop/hadoop-common/2.7.3>  
<http://mvnrepository.com/artifact/org.apache.hadoop/hadoop-mapreduce-client-core/2.7.3>

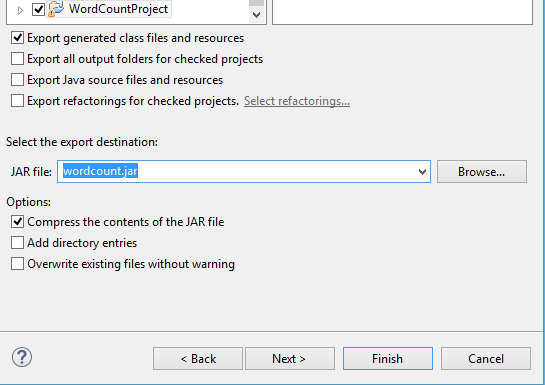
* **Mount -t vboxsf bigdata /home/cloudera/workspace/bigdata**
* **Add jar file to project**

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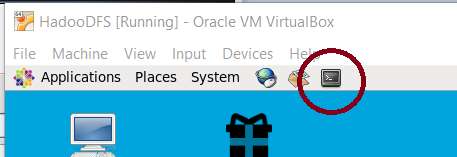
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* **Get WordCount example from** [**https://wiki.apache.org/hadoop/WordCount**](https://wiki.apache.org/hadoop/WordCount)
* **Export to WordCount.jar to test the WordCount example. Right click on Project, choose “Export”. The Export window will appear, choose Java -> Runable JAR file. Click Next.**

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* **Open terminal program**



* **Open Terminal and first create input and output locations in HDFS. Using the following commands:**

$ sudo su hdfs

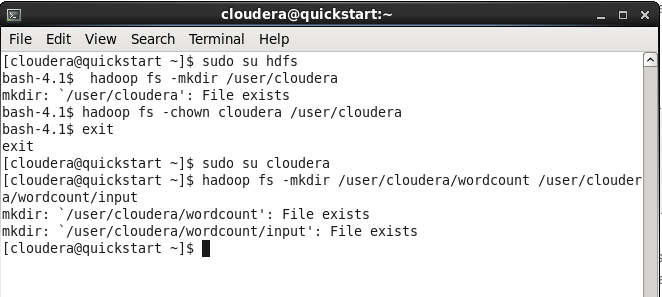
$ hadoop fs -mkdir /user/cloudera

$ hadoop fs -chown cloudera /user/cloudera

$ exit

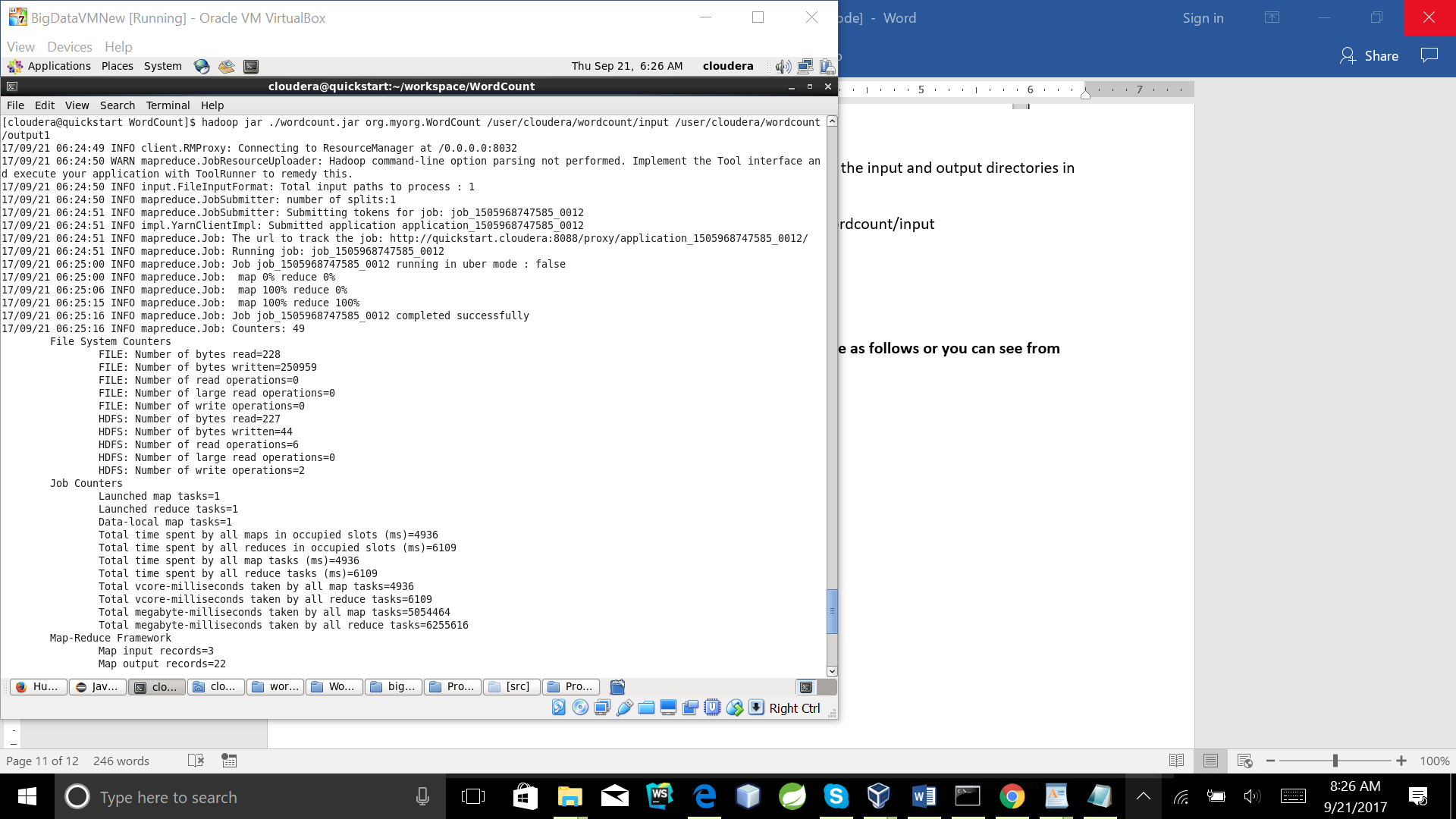
$ sudo su cloudera

$ hadoop fs -mkdir /user/cloudera/wordcount /user/cloudera/wordcount/input

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Run the WordCount application from the JAR file, given the paths to the input and output directories in HDFS.

hadoop jar wordcount.jar org.myorg.WordCount /user/cloudera/wordcount/input /user/cloudera/wordcount/output



**In order to see the output use the following command which will be as follows or you can see from the browser by downloading the output file.**

**hadoop fs -cat /user/cloudera/wordcount/output/\***

