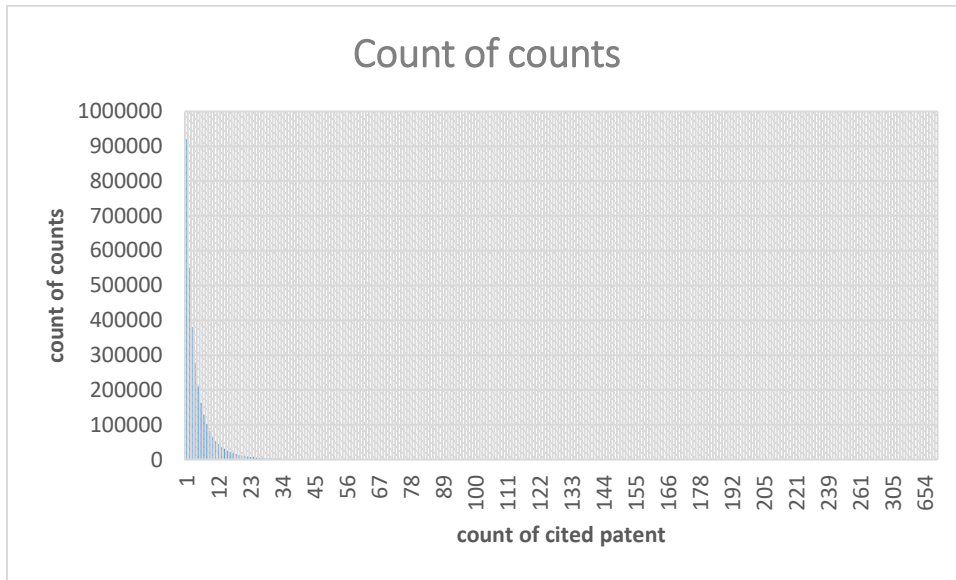


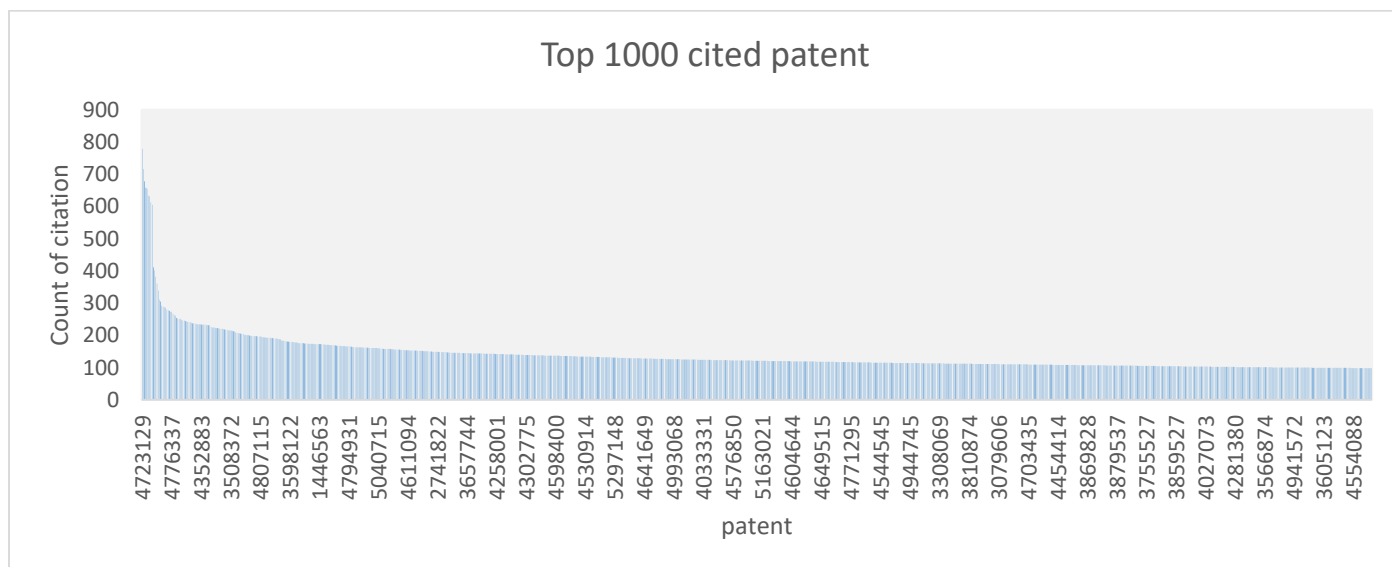
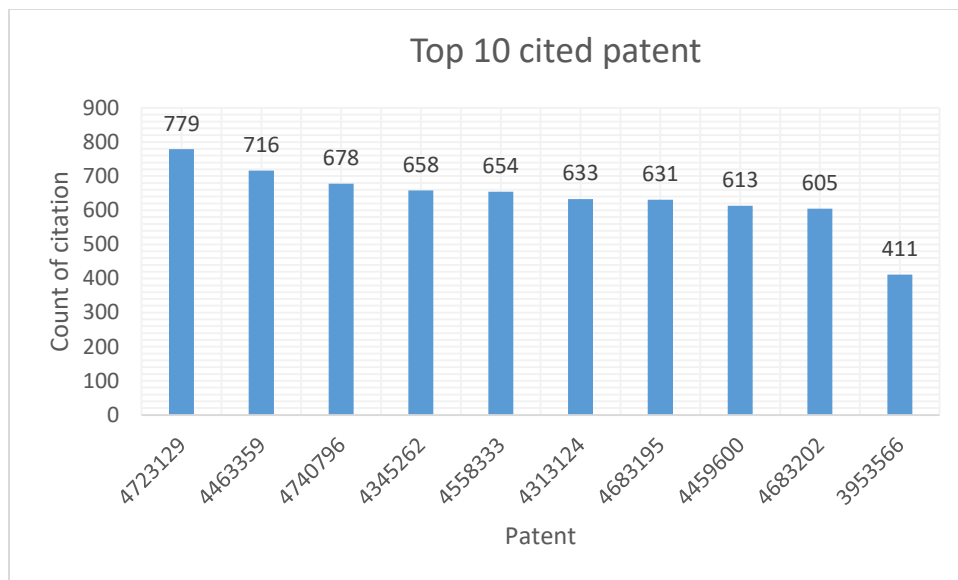
1) Histogram of job-2 i.e. Histogram.java output is as below:



2) Output for top 10 records and Histogram for top 10 and 1000 records (i.e. output of job 3 – TopNRec1.java) is as below:

```
Windows PowerShell
vagrant@vagrant-ubuntu-trusty-64:~/week-11$ hadoop fs -cat /user/$USER/Output/topn/part-r-00000 | head
779 4723129
716 4463359
678 4740796
658 4345262
654 4558333
633 4313124
631 4683195
613 4459600
605 4683202
411 3953566
vagrant@vagrant-ubuntu-trusty-64:~/week-11$
```

In above image, first column is count and second column is patent



(As there is large amount of data on X-axis i.e. 1000, all the data is not visible. One can view all the data by expanding the above chart in .docx format).