# Program Execution

## <u>Part I.</u> Steps to SSH into the Hadoop Master Instance: (From Mac OS or any Linux Variant)

1. Download the Key Pair to your local machine.

2. Change the current working directory to the path where the key pair is located.

3. Change the permissions of the Key Pair to 500.

**$ chmod 500 CloudKeyPair.pem**

```
Harinarayanan:FinalProject Hari$ chmod 500 CloudKeyPair.pem
Harinarayanan:FinalProject Hari$ ls -ltr
total 25840
-r-x------@  1 Hari  staff      1696 Oct 11 21:40 CloudKeyPair.pem
-rw-------@  1 Hari  staff    104113 Dec  8 02:23 matches.csv
-rw-r--r--@  1 Hari  staff       346 Dec  8 03:57 HomeGrounds.txt
drwxr-xr-x  13 Hari  staff       442 Dec  9 15:34 CrossValidation
-rw-------@  1 Hari  staff       162 Dec  9 16:36 ~$han_harinarayanan_finaltermprojoption6.docx
-rw-r--r--   1 Hari  staff   1039872 Dec 10 01:36 CrossValidation.tar
-rw-r--r--@  1 Hari  staff  12007120 Dec 10 02:02 IPLPrediction.jar
drwxr-xr-x  13 Hari  staff       442 Dec 10 03:05 ScreenShots
-rw-------@  1 Hari  staff     58240 Dec 10 05:19 mohan_harinarayanan_finaltermprojoption6.docx
Harinarayanan:FinalProject Hari$
```

4. SSH into the Hadoop master Instance by using the below command:

**$ ssh -i CloudKeyPair.pem ubuntu@ec2-52-55-2-64.compute-1.amazonaws.com**

```
Harinarayanan:FinalProject Hari$ ssh -i CloudKeyPair.pem ubuntu@ec2-52-55-2-64.compute-1.amazonaws.com
Welcome to Ubuntu 14.04.4 LTS (GNU/Linux 3.13.0-91-generic x86_64)

 * Documentation:  https://help.ubuntu.com/

  System information as of Sat Dec 10 07:02:46 UTC 2016

  System load:  0.06               Processes:           114
  Usage of /:   15.8% of 29.39GB   Users logged in:     1
  Memory usage: 40%                IP address for eth0: 172.31.5.213
  Swap usage:   0%

  Graph this data and manage this system at:
    https://landscape.canonical.com/

  Get cloud support with Ubuntu Advantage Cloud Guest:
    http://www.ubuntu.com/business/services/cloud

89 packages can be updated.
51 updates are security updates.

New release '16.04.1 LTS' available.
Run 'do-release-upgrade' to upgrade to it.


Last login: Sat Dec 10 06:35:55 2016 from c-73-198-207-61.hsd1.nj.comcast.net
ubuntu@ip-172-31-5-213:~$
```

## <u>Part II.</u> Steps to Download the JAR file and Data Set:

1. To Download the JAR file from S3 bucket to Hadoop Master

**ubuntu@ip-172-31-5-213:~$ wget [https://s3.amazonaws.com/indian-premier-league-prediction/IPLPrediction.jar](https://s3.amazonaws.com/indian-premier-league-prediction/IPLPrediction.jar)**

```
ubuntu@ip-172-31-5-213: ~ — ss...   ubuntu@ip-172-31-12-22: /usr/loc...   ubuntu@ip-172-31-12-21: /usr/loc...   ubuntu@ip-172-31-12-20: /usr/loc...   ...s/DataMining/FinalProject — -bash   ubuntu@ip-172-31-5-213: ~ — -ba...
ubuntu@ip-172-31-5-213:~$
ubuntu@ip-172-31-5-213:~$
ubuntu@ip-172-31-5-213:~$ wget https://s3.amazonaws.com/indian-premier-league-prediction/IPLPrediction.jar
--2016-12-10 10:40:17--  https://s3.amazonaws.com/indian-premier-league-prediction/IPLPrediction.jar
Resolving s3.amazonaws.com (s3.amazonaws.com)... 52.216.1.27
Connecting to s3.amazonaws.com (s3.amazonaws.com)|52.216.1.27|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 12007120 (11M) [application/x-java-archive]
Saving to: 'IPLPrediction.jar'

100%[===================================================================================>] 12,007,120  68.5MB/s   in 0.2s

2016-12-10 10:40:17 (68.5 MB/s) - 'IPLPrediction.jar' saved [12007120/12007120]

ubuntu@ip-172-31-5-213:~$ ls -ltr I*
-rw-rw-r-- 1 ubuntu ubuntu 12007120 Dec 10 10:09 IPLPrediction.jar
ubuntu@ip-172-31-5-213:~$
```

2. To Download the Data set from S3 bucket (This data set archive has 10 directories where each directory contains the input for each fold of 10-folds cross validation)

**ubuntu@ip-172-31-5-213:~$ wget [https://s3.amazonaws.com/indian-premier-league-prediction/CrossValidation.tar](https://s3.amazonaws.com/indian-premier-league-prediction/CrossValidation.tar)**

```
ubuntu@ip-172-31-5-213:~$
ubuntu@ip-172-31-5-213:~$
ubuntu@ip-172-31-5-213:~$ wget https://s3.amazonaws.com/indian-premier-league-prediction/CrossValidation.tar
--2016-12-10 10:46:22--  https://s3.amazonaws.com/indian-premier-league-prediction/CrossValidation.tar
Resolving s3.amazonaws.com (s3.amazonaws.com)... 52.216.32.83
Connecting to s3.amazonaws.com (s3.amazonaws.com)|52.216.32.83|:443... connected.
HTTP request sent, awaiting response... 200 OK
Length: 1039872 (1016K) [application/x-tar]
Saving to: 'CrossValidation.tar'

100%[===================================================================================>] 1,039,872   --.-K/s   in 0.1s

2016-12-10 10:46:22 (6.71 MB/s) - 'CrossValidation.tar' saved [1039872/1039872]

ubuntu@ip-172-31-5-213:~$ ls -ltr C*
-rw-r--r--  1 ubuntu ubuntu 11909261 Oct 13 07:40 Cloud.jar
-rw-rw-r--  1 ubuntu ubuntu  1039872 Dec 10 10:09 CrossValidation.tar

CrossValidation:
total 40
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec  9 19:53 validation9
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 10 06:37 validation8
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 10 06:37 validation7
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 10 06:37 validation6
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 10 06:37 validation5
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 10 06:37 validation4
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 10 06:37 validation3
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 10 06:37 validation2
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 10 06:37 validation10
drwxr-xr-x 2 ubuntu ubuntu 4096 Dec 10 06:37 validation1
ubuntu@ip-172-31-5-213:~$
```

## <u>Part III.</u> To Create Input Directories and Load the Data Set to them in Hadoop File System:

1. To List the contents in the Hadoop file system

**ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /**

```
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 2 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
ubuntu@ip-172-31-5-213:~$
```

2. To create directories (for loading the input) in the Hadoop file system.

**ubuntu@ip-172-31-5-213:~$ hadoop fs -mkdir /trainDataSet1 /testDataSet1 /trainDataSet2 /testDataSet2 /trainDataSet3 /testDataSet3 /trainDataSet4 /testDataSet4 /trainDataSet5 /testDataSet5 /trainDataSet6 /testDataSet6 /trainDataSet7 /testDataSet7 /trainDataSet8 /testDataSet8 /trainDataSet9 /testDataSet9 /trainDataSet10 /testDataSet10**

```
ubuntu@ip-172-31-5-213:~$ hadoop fs -mkdir /trainDataSet1 /testDataSet1 /trainDataSet2 /testDataSet2 /trainDataSet3 /testDataSet3
/trainDataSet4 /testDataSet4 /trainDataSet5 /testDataSet5 /trainDataSet6 /testDataSet6 /trainDataSet7 /testDataSet7 /trainDataSet8
 /testDataSet8 /trainDataSet9 /testDataSet9 /trainDataSet10 /testDataSet10
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 22 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 11:17 /trainDataSet9
ubuntu@ip-172-31-5-213:~$
```

3. To un tar the CrossValidation.tar

**ubuntu@ip-172-31-5-213:~$ tar -xvf CrossValidation.tar**

```
ubuntu@ip-172-31-5-213:~$
ubuntu@ip-172-31-5-213:~$ tar -xvf CrossValidation.tar
CrossValidation/
CrossValidation/._.DS_Store
CrossValidation/.DS_Store
CrossValidation/validation1/
CrossValidation/validation10/
CrossValidation/validation2/
CrossValidation/validation3/
CrossValidation/validation4/
CrossValidation/validation5/
CrossValidation/validation6/
CrossValidation/validation7/
CrossValidation/validation8/
CrossValidation/validation9/
CrossValidation/validation9/._.DS_Store
CrossValidation/validation9/.DS_Store
CrossValidation/validation9/._TestDataSet.csv
CrossValidation/validation9/TestDataSet.csv
CrossValidation/validation9/._TrainDataSet.csv
CrossValidation/validation9/TrainDataSet.csv
CrossValidation/validation8/._.DS_Store
CrossValidation/validation8/.DS_Store
CrossValidation/validation8/._TestDataSet.csv
CrossValidation/validation8/TestDataSet.csv
CrossValidation/validation8/._TrainDataSet.csv
CrossValidation/validation8/TrainDataSet.csv
CrossValidation/validation7/._.DS_Store
CrossValidation/validation7/.DS_Store
CrossValidation/validation7/._TestDataSet.csv
CrossValidation/validation7/TestDataSet.csv
CrossValidation/validation7/._TrainDataSet.csv
CrossValidation/validation7/TrainDataSet.csv
CrossValidation/validation6/._.DS_Store
CrossValidation/validation6/.DS_Store
CrossValidation/validation6/._TestDataSet.csv
CrossValidation/validation6/TestDataSet.csv
CrossValidation/validation6/._TrainDataSet.csv
CrossValidation/validation6/TrainDataSet.csv
CrossValidation/validation5/._.DS_Store
```

```
CrossValidation/validation6/._TestDataSet.csv
CrossValidation/validation6/TestDataSet.csv
CrossValidation/validation6/._TrainDataSet.csv
CrossValidation/validation6/TrainDataSet.csv
CrossValidation/validation5/._.DS_Store
CrossValidation/validation5/.DS_Store
CrossValidation/validation5/._TestDataSet.csv
CrossValidation/validation5/TestDataSet.csv
CrossValidation/validation5/._TrainDataSet.csv
CrossValidation/validation5/TrainDataSet.csv
CrossValidation/validation4/._.DS_Store
CrossValidation/validation4/.DS_Store
CrossValidation/validation4/._TestDataSet.csv
CrossValidation/validation4/TestDataSet.csv
CrossValidation/validation4/._TrainDataSet.csv
CrossValidation/validation4/TrainDataSet.csv
CrossValidation/validation3/._.DS_Store
CrossValidation/validation3/.DS_Store
CrossValidation/validation3/._TestDataSet.csv
CrossValidation/validation3/TestDataSet.csv
CrossValidation/validation3/._TrainDataSet.csv
CrossValidation/validation3/TrainDataSet.csv
CrossValidation/validation2/._.DS_Store
CrossValidation/validation2/.DS_Store
CrossValidation/validation2/._TestDataSet.csv
CrossValidation/validation2/TestDataSet.csv
CrossValidation/validation2/._TrainDataSet.csv
CrossValidation/validation2/TrainDataSet.csv
CrossValidation/validation10/._.DS_Store
CrossValidation/validation10/.DS_Store
CrossValidation/validation10/._TestDataSet.csv
CrossValidation/validation10/TestDataSet.csv
CrossValidation/validation10/._TrainDataSet.csv
CrossValidation/validation10/TrainDataSet.csv
CrossValidation/validation1/._.DS_Store
CrossValidation/validation1/.DS_Store
CrossValidation/validation1/._TestDataSet.csv
CrossValidation/validation1/TestDataSet.csv
CrossValidation/validation1/._TrainDataSet.csv
CrossValidation/validation1/TrainDataSet.csv
ubuntu@ip-172-31-5-213:~$
```

4. To copy all the data set and load into the corresponding directories in Hadoop file system

**ubuntu@ip-172-31-5-213:~$ hadoop fs -put CrossValidation/validation10/TestDataSet.csv /testDataSet10/; hadoop fs -put CrossValidation/validation9/TestDataSet.csv /testDataSet9/; hadoop fs -put CrossValidation/validation8/TestDataSet.csv /testDataSet8/; hadoop fs -put CrossValidation/validation7/TestDataSet.csv /testDataSet7/; hadoop fs -put CrossValidation/validation6/TestDataSet.csv /testDataSet6/; hadoop fs -put CrossValidation/validation5/TestDataSet.csv /testDataSet5/; hadoop fs -put CrossValidation/validation4/TestDataSet.csv /testDataSet4/; hadoop fs -put CrossValidation/validation3/TestDataSet.csv /testDataSet3/; hadoop fs -put CrossValidation/validation2/TestDataSet.csv /testDataSet2/; hadoop fs -put CrossValidation/validation1/TestDataSet.csv /testDataSet1/; hadoop fs -put CrossValidation/validation10/TrainDataSet.csv /trainDataSet10/; hadoop fs -put CrossValidation/validation9/TrainDataSet.csv /trainDataSet9/; hadoop fs -put CrossValidation/validation8/TrainDataSet.csv /trainDataSet8/; hadoop fs -put CrossValidation/validation7/TrainDataSet.csv /trainDataSet7/; hadoop fs -put CrossValidation/validation6/TrainDataSet.csv /trainDataSet6/; hadoop fs -put CrossValidation/validation5/TrainDataSet.csv /trainDataSet5/; hadoop fs -put CrossValidation/validation4/TrainDataSet.csv /trainDataSet4/; hadoop fs -put CrossValidation/validation3/TrainDataSet.csv /trainDataSet3/; hadoop fs -put CrossValidation/validation2/TrainDataSet.csv /trainDataSet2/; hadoop fs -put CrossValidation/validation1/TrainDataSet.csv /trainDataSet1/**

## <u>Part IV.</u> Steps to Execute the JAR file:

1. To Run the JAR file and give the particular training data set and testing data set as input for validation, use the below syntax:

***Syntax: hadoop jar IPLPrediction.jar <Validation Number>***

## <u>Validation 1:</u>

**ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 1**

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
ubuntu@ip-172-31-5-213:~$
ubuntu@ip-172-31-5-213:~$
ubuntu@ip-172-31-5-213:~$
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 1
16/12/10 07:04:35 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:04:35 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:04:35 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:04:35 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:04:36 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0051
16/12/10 07:04:36 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0051
16/12/10 07:04:36 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0051/
16/12/10 07:04:36 INFO mapreduce.Job: Running job: job_1481234376367_0051
16/12/10 07:04:44 INFO mapreduce.Job: Job job_1481234376367_0051 running in uber mode : false
16/12/10 07:04:44 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:04:49 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:04:54 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:04:54 INFO mapreduce.Job: Job job_1481234376367_0051 completed successfully
16/12/10 07:04:54 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55655
                FILE: Number of bytes written=344373
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=79898
                HDFS: Number of bytes written=53849
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
                Rack-local map tasks=1
                Total time spent by all maps in occupied slots (ms)=2750
                Total time spent by all reduces in occupied slots (ms)=2689
                Total time spent by all map tasks (ms)=2750
                Total time spent by all reduce tasks (ms)=2689
                Total vcore-seconds taken by all map tasks=2750
                Total vcore-seconds taken by all reduce tasks=2689
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo... ...   ubuntu@ip-172-31-12-21: /usr/local/hadoo... ...   ubuntu@ip-172-31-12-20: /usr/local/hadoo... ...   ...ocuments/DataMining/FinalProject — -bash
                Total vcore-seconds taken by all reduce tasks=2689
                Total megabyte-seconds taken by all map tasks=2816000
                Total megabyte-seconds taken by all reduce tasks=2753536
        Map-Reduce Framework
                Map input records=450
                Map output records=900
                Map output bytes=53849
                Map output materialized bytes=55655
                Input split bytes=123
                Combine input records=0
                Combine output records=0
                Reduce input groups=900
                Reduce shuffle bytes=55655
                Reduce input records=900
                Reduce output records=900
                Spilled Records=1800
                Shuffled Maps =1
                Failed Shuffles=0
                Merged Map outputs=1
                GC time elapsed (ms)=30
                CPU time spent (ms)=1220
                Physical memory (bytes) snapshot=459792384
                Virtual memory (bytes) snapshot=1669640192
                Total committed heap usage (bytes)=312475648
        Shuffle Errors
                BAD_ID=0
                CONNECTION=0
                IO_ERROR=0
                WRONG_LENGTH=0
                WRONG_MAP=0
                WRONG_REDUCE=0
        File Input Format Counters
                Bytes Read=79775
        File Output Format Counters
                Bytes Written=53849
16/12/10 07:04:54 INFO Configuration.deprecation: mapred.textoutputformat.separator is deprecated. Instead, use mapreduce.output.t
extoutputformat.separator
16/12/10 07:04:54 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:04:54 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:04:54 INFO input.FileInputFormat: Total input paths to process : 1
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo... ...   ubuntu@ip-172-31-12-21: /usr/local/hadoo... ...   ubuntu@ip-172-31-12-20: /usr/local/hadoo... ...   ...ocuments/DataMining/FinalProject — -bash
extoutputformat.separator
16/12/10 07:04:54 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:04:54 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:04:54 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:04:54 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:04:54 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0052
16/12/10 07:04:54 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0052
16/12/10 07:04:54 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0052/
16/12/10 07:04:54 INFO mapreduce.Job: Running job: job_1481234376367_0052
16/12/10 07:04:59 INFO mapreduce.Job: Job job_1481234376367_0052 running in uber mode : false
16/12/10 07:04:59 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:05:04 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:05:09 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:05:09 INFO mapreduce.Job: Job job_1481234376367_0052 completed successfully
16/12/10 07:05:09 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=136765
                FILE: Number of bytes written=507325
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=53965
                HDFS: Number of bytes written=850
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
                Data-local map tasks=1
                Total time spent by all maps in occupied slots (ms)=2705
                Total time spent by all reduces in occupied slots (ms)=3029
                Total time spent by all map tasks (ms)=2705
                Total time spent by all reduce tasks (ms)=3029
                Total vcore-seconds taken by all map tasks=2705
                Total vcore-seconds taken by all reduce tasks=3029
                Total megabyte-seconds taken by all map tasks=2769920
                Total megabyte-seconds taken by all reduce tasks=3101696
        Map-Reduce Framework
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
                Total megabyte-seconds taken by all map tasks=2769920
                Total megabyte-seconds taken by all reduce tasks=3101696
        Map-Reduce Framework
                Map input records=900
                Map output records=5674
                Map output bytes=125411
                Map output materialized bytes=136765
                Input split bytes=116
                Combine input records=0
                Combine output records=0
                Reduce input groups=38
                Reduce shuffle bytes=136765
                Reduce input records=5674
                Reduce output records=0
                Spilled Records=11348
                Shuffled Maps =1
                Failed Shuffles=0
                Merged Map outputs=1
                GC time elapsed (ms)=33
                CPU time spent (ms)=1650
                Physical memory (bytes) snapshot=458489856
                Virtual memory (bytes) snapshot=1662201856
                Total committed heap usage (bytes)=317718528
        Shuffle Errors
                BAD_ID=0
                CONNECTION=0
                IO_ERROR=0
                WRONG_LENGTH=0
                WRONG_MAP=0
                WRONG_REDUCE=0
        File Input Format Counters
                Bytes Read=53849
        File Output Format Counters
                Bytes Written=0
16/12/10 07:05:10 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:05:10 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:05:10 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:05:10 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:05:10 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0053
16/12/10 07:05:10 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0053
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
16/12/10 07:05:10 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:05:10 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:05:10 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0053
16/12/10 07:05:10 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0053
16/12/10 07:05:10 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0053/
16/12/10 07:05:10 INFO mapreduce.Job: Running job: job_1481234376367_0053
16/12/10 07:05:15 INFO mapreduce.Job: Job job_1481234376367_0053 running in uber mode : false
16/12/10 07:05:15 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:05:19 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:05:25 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:05:25 INFO mapreduce.Job: Job job_1481234376367_0053 completed successfully
16/12/10 07:05:25 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=9678
                FILE: Number of bytes written=252623
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=9025
                HDFS: Number of bytes written=4720
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
                Rack-local map tasks=1
                Total time spent by all maps in occupied slots (ms)=2582
                Total time spent by all reduces in occupied slots (ms)=2851
                Total time spent by all map tasks (ms)=2582
                Total time spent by all reduce tasks (ms)=2851
                Total vcore-seconds taken by all map tasks=2582
                Total vcore-seconds taken by all reduce tasks=2851
                Total megabyte-seconds taken by all map tasks=2643968
                Total megabyte-seconds taken by all reduce tasks=2919424
        Map-Reduce Framework
                Map input records=50
                Map output records=250
                Map output bytes=9172
                Map output materialized bytes=9678
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
        Map-Reduce Framework
                Map input records=50
                Map output records=250
                Map output bytes=9172
                Map output materialized bytes=9678
                Input split bytes=121
                Combine input records=0
                Combine output records=0
                Reduce input groups=50
                Reduce shuffle bytes=9678
                Reduce input records=250
                Reduce output records=50
                Spilled Records=500
                Shuffled Maps =1
                Failed Shuffles=0
                Merged Map outputs=1
                GC time elapsed (ms)=37
                CPU time spent (ms)=980
                Physical memory (bytes) snapshot=460304384
                Virtual memory (bytes) snapshot=1663217664
                Total committed heap usage (bytes)=312475648
        Shuffle Errors
                BAD_ID=0
                CONNECTION=0
                IO_ERROR=0
                WRONG_LENGTH=0
                WRONG_MAP=0
                WRONG_REDUCE=0
        File Input Format Counters
                Bytes Read=8904
        File Output Format Counters
                Bytes Written=4720
16/12/10 07:05:25 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:05:25 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:05:25 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:05:25 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:05:25 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0054
16/12/10 07:05:25 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0054
16/12/10 07:05:25 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0054/
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
16/12/10 07:05:25 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0054
16/12/10 07:05:25 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0054
16/12/10 07:05:25 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0054/
16/12/10 07:05:25 INFO mapreduce.Job: Running job: job_1481234376367_0054
16/12/10 07:05:30 INFO mapreduce.Job: Job job_1481234376367_0054 running in uber mode : false
16/12/10 07:05:30 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:05:35 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:05:40 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:05:40 INFO mapreduce.Job: Job job_1481234376367_0054 completed successfully
16/12/10 07:05:40 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=948
                FILE: Number of bytes written=233467
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=4836
                HDFS: Number of bytes written=24
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
                Rack-local map tasks=1
                Total time spent by all maps in occupied slots (ms)=2654
                Total time spent by all reduces in occupied slots (ms)=2803
                Total time spent by all map tasks (ms)=2654
                Total time spent by all reduce tasks (ms)=2803
                Total vcore-seconds taken by all map tasks=2654
                Total vcore-seconds taken by all reduce tasks=2803
                Total megabyte-seconds taken by all map tasks=2717696
                Total megabyte-seconds taken by all reduce tasks=2870272
        Map-Reduce Framework
                Map input records=50
                Map output records=50
                Map output bytes=842
                Map output materialized bytes=948
                Input split bytes=116
                Combine input records=0
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
                Map output records=50
                Map output bytes=842
                Map output materialized bytes=948
                Input split bytes=116
                Combine input records=0
                Combine output records=0
                Reduce input groups=2
                Reduce shuffle bytes=948
                Reduce input records=50
                Reduce output records=2
                Spilled Records=100
                Shuffled Maps =1
                Failed Shuffles=0
                Merged Map outputs=1
                GC time elapsed (ms)=37
                CPU time spent (ms)=930
                Physical memory (bytes) snapshot=455823360
                Virtual memory (bytes) snapshot=1663844352
                Total committed heap usage (bytes)=307757056
        Shuffle Errors
                BAD_ID=0
                CONNECTION=0
                IO_ERROR=0
                WRONG_LENGTH=0
                WRONG_MAP=0
                WRONG_REDUCE=0
        File Input Format Counters
                Bytes Read=4720
        File Output Format Counters
                Bytes Written=24
16/12/10 07:05:40 INFO mapreduce.Job: Running job: job_1481234376367_0052
16/12/10 07:05:41 INFO ipc.Client: Retrying connect to server: ip-172-31-12-21.ec2.internal/172.31.12.21:39128. Already tried 0 ti
me(s); retry policy is RetryUpToMaximumCountWithFixedSleep(maxRetries=3, sleepTime=1000 MILLISECONDS)
16/12/10 07:05:42 INFO ipc.Client: Retrying connect to server: ip-172-31-12-21.ec2.internal/172.31.12.21:39128. Already tried 1 ti
me(s); retry policy is RetryUpToMaximumCountWithFixedSleep(maxRetries=3, sleepTime=1000 MILLISECONDS)
16/12/10 07:05:43 INFO ipc.Client: Retrying connect to server: ip-172-31-12-21.ec2.internal/172.31.12.21:39128. Already tried 2 ti
me(s); retry policy is RetryUpToMaximumCountWithFixedSleep(maxRetries=3, sleepTime=1000 MILLISECONDS)
16/12/10 07:05:43 INFO mapred.ClientServiceDelegate: Application state is completed. FinalApplicationStatus=SUCCEEDED. Redirecting
 to job history server
16/12/10 07:05:44 INFO mapreduce.Job: Job job_1481234376367_0052 running in uber mode : false
16/12/10 07:05:44 INFO mapreduce.Job:  map 100% reduce 100%
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
16/12/10 07:05:44 INFO mapreduce.Job: Job job_1481234376367_0052 running in uber mode : false
16/12/10 07:05:44 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:05:44 INFO mapreduce.Job: Job job_1481234376367_0052 completed successfully
16/12/10 07:05:44 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=136765
                FILE: Number of bytes written=507325
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=53965
                HDFS: Number of bytes written=850
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
                Data-local map tasks=1
                Total time spent by all maps in occupied slots (ms)=2705
                Total time spent by all reduces in occupied slots (ms)=3029
                Total time spent by all map tasks (ms)=2705
                Total time spent by all reduce tasks (ms)=3029
                Total vcore-seconds taken by all map tasks=2705
                Total vcore-seconds taken by all reduce tasks=3029
                Total megabyte-seconds taken by all map tasks=2769920
                Total megabyte-seconds taken by all reduce tasks=3101696
        Map-Reduce Framework
                Map input records=900
                Map output records=5674
                Map output bytes=125411
                Map output materialized bytes=136765
                Input split bytes=116
                Combine input records=0
                Combine output records=0
                Reduce input groups=38
                Reduce shuffle bytes=136765
                Reduce input records=5674
                Reduce output records=0
                Spilled Records=11348
                Shuffled Maps =1
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
                Reduce output records=0
                Spilled Records=11348
                Shuffled Maps =1
                Failed Shuffles=0
                Merged Map outputs=1
                GC time elapsed (ms)=33
                CPU time spent (ms)=1650
                Physical memory (bytes) snapshot=458489856
                Virtual memory (bytes) snapshot=1662201856
                Total committed heap usage (bytes)=317718528
        Shuffle Errors
                BAD_ID=0
                CONNECTION=0
                IO_ERROR=0
                WRONG_LENGTH=0
                WRONG_MAP=0
                WRONG_REDUCE=0
        File Input Format Counters
                Bytes Read=53849
        File Output Format Counters
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 28 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:04 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
                WRONG_LENGTH=0
                WRONG_MAP=0
                WRONG_REDUCE=0
        File Input Format Counters
                Bytes Read=53849
        File Output Format Counters
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 28 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:04 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation1/part-r-00000
Correct,29
InCorrect,21
ubuntu@ip-172-31-5-213:~$
```

2. To display the validation of the predicted results and actual results

**ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation1/part-r-00000**

3. To display the predictions for the current testing data set

**ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000**

```
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation1/part-r-00000
Correct,29
InCorrect,21
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
1:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
10:Kings XI Punjab:vs:Mumbai Indians,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
11:Royal Challengers Bangalore:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
12:Kolkata Knight Riders:vs:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
13:Mumbai Indians:vs:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
14:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
15:Chennai Super Kings:Royal Challengers Bangalore,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
16:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
17:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
18:Deccan Chargers:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
19:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
2:Chennai Super Kings:vs:Kings XI Punjab,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
20:Chennai Super Kings:vs:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Chennai Super Kings
21:Deccan Chargers:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Deccan Chargers
22:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
23:Mumbai Indians:Delhi Daredevils,WonBy:Mumbai Indians,Prediction:Mumbai Indians
24:Chennai Super Kings:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Chennai Super Kings
25:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
26:Chennai Super Kings:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
27:Rajasthan Royals:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
28:Delhi Daredevils:vs:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
29:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
3:Rajasthan Royals:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Rajasthan Royals
30:Deccan Chargers:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
31:Royal Challengers Bangalore:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
32:Chennai Super Kings:Kings XI Punjab,WonBy:Chennai Super Kings,Prediction:Kings XI Punjab
33:Kolkata Knight Riders:vs:Deccan Chargers,WonBy:Kolkata Knight Riders,Prediction:Deccan Chargers
34:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
35:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
36:Kolkata Knight Riders:Delhi Daredevils,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
37:Chennai Super Kings:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Chennai Super Kings
38:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
39:Delhi Daredevils:Deccan Chargers,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
4:Mumbai Indians:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
40:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
41:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
```


```
4:Mumbai Indians:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
40:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
41:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
```


```
42:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
43:Mumbai Indians:vs:Deccan Chargers,WonBy:Mumbai Indians,Prediction:Deccan Chargers
44:Kolkata Knight Riders:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Kolkata Knight Riders
45:Royal Challengers Bangalore:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
46:Kolkata Knight Riders:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
47:Kings XI Punjab:vs:Mumbai Indians,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
48:Royal Challengers Bangalore:vs:Chennai Super Kings,WonBy:Royal Challengers Bangalore,Prediction:Chennai Super Kings
49:Deccan Chargers:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
5:Deccan Chargers:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Deccan Chargers
50:Mumbai Indians:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
6:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
7:Deccan Chargers:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
8:Chennai Super Kings:Mumbai Indians,WonBy:Chennai Super Kings,Prediction:Mumbai Indians
9:Deccan Chargers:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
ubuntu@ip-172-31-5-213:~$
```

## Validation 2:

4. To delete the output directories and their contents of the previous execution

**ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability**

5. To run the next execution i.e for validation 2

**ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 2**

```
ubuntu@ip-172-31-5-213: ~ — ssh namenode...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability
16/12/10 07:25:09 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /matchFacts
16/12/10 07:25:09 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /prediction
16/12/10 07:25:09 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /probability
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 2
16/12/10 07:25:42 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:25:42 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:25:43 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:25:43 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:25:43 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0055
16/12/10 07:25:43 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0055
16/12/10 07:25:43 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0055/
16/12/10 07:25:43 INFO mapreduce.Job: Running job: job_1481234376367_0055
16/12/10 07:25:48 INFO mapreduce.Job: Job job_1481234376367_0055 running in uber mode : false
16/12/10 07:25:48 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:25:53 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:25:58 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:25:58 INFO mapreduce.Job: Job job_1481234376367_0055 completed successfully
16/12/10 07:25:58 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55667
                FILE: Number of bytes written=344391
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=80382
                HDFS: Number of bytes written=53861
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash

                Bytes Read=53861
        File Output Format Counters
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 29 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:25 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /validation2
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /validation2/part-r-00000
-rw-r--r--   2 ubuntu supergroup         24 2016-12-10 07:26 /validation2/part-r-00000
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation2/part-r-00000
Correct,25
InCorrect,25
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
100:Chennai Super Kings:vs:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Chennai Super Kings
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash

Correct,25
InCorrect,25
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
100:Chennai Super Kings:vs:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Chennai Super Kings
51:Rajasthan Royals:vs:Chennai Super Kings,WonBy:Rajasthan Royals,Prediction:Chennai Super Kings
52:Royal Challengers Bangalore:Deccan Chargers,WonBy:Royal Challengers Bangalore,Prediction:Deccan Chargers
53:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
54:Mumbai Indians:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Mumbai Indians
55:Deccan Chargers:vs:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
56:Rajasthan Royals:Delhi Daredevils,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
57:Kings XI Punjab:vs:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
58:Chennai Super Kings:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Chennai Super Kings
59:Mumbai Indians:vs:Chennai Super Kings,WonBy:Mumbai Indians,Prediction:Chennai Super Kings
60:Royal Challengers Bangalore:Rajasthan Royals,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
61:Kings XI Punjab:vs:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kings XI Punjab
62:Kolkata Knight Riders:vs:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
63:Chennai Super Kings:vs:Royal Challengers Bangalore,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
64:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
65:Deccan Chargers:Royal Challengers Bangalore,WonBy:Deccan Chargers,Prediction:Deccan Chargers
66:Delhi Daredevils:vs:Chennai Super Kings,WonBy:Delhi Daredevils,Prediction:Chennai Super Kings
67:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
68:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
69:Deccan Chargers:vs:Mumbai Indians,WonBy:Deccan Chargers,Prediction:Deccan Chargers
70:Royal Challengers Bangalore:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
71:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
72:Chennai Super Kings:vs:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Chennai Super Kings
73:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Mumbai Indians,Prediction:Mumbai Indians
74:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
75:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
76:Kings XI Punjab:vs:Mumbai Indians,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
77:Deccan Chargers:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
78:Chennai Super Kings:vs:Rajasthan Royals,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
79:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Mumbai Indians,Prediction:Mumbai Indians
80:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Royal Challengers Bangalore,Prediction:Kings XI Punjab
81:Deccan Chargers:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
82:Chennai Super Kings:vs:Delhi Daredevils,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
83:Kolkata Knight Riders:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
84:Mumbai Indians:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
85:Chennai Super Kings:vs:Deccan Chargers,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
86:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
87:Kolkata Knight Riders:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kolkata Knight Riders
```

```
64:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
65:Deccan Chargers:Royal Challengers Bangalore,WonBy:Deccan Chargers,Prediction:Deccan Chargers
66:Delhi Daredevils:vs:Chennai Super Kings,WonBy:Delhi Daredevils,Prediction:Chennai Super Kings
67:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
68:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
69:Deccan Chargers:vs:Mumbai Indians,WonBy:Deccan Chargers,Prediction:Deccan Chargers
70:Royal Challengers Bangalore:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
71:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
72:Chennai Super Kings:vs:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Chennai Super Kings
73:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Mumbai Indians,Prediction:Mumbai Indians
74:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
75:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
76:Kings XI Punjab:vs:Mumbai Indians,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
77:Deccan Chargers:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
78:Chennai Super Kings:vs:Rajasthan Royals,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
79:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Mumbai Indians,Prediction:Mumbai Indians
80:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Royal Challengers Bangalore,Prediction:Kings XI Punjab
81:Deccan Chargers:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
82:Chennai Super Kings:vs:Delhi Daredevils,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
83:Kolkata Knight Riders:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
84:Mumbai Indians:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
85:Chennai Super Kings:vs:Deccan Chargers,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
86:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
87:Kolkata Knight Riders:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kolkata Knight Riders
88:Deccan Chargers:vs:Mumbai Indians,WonBy:Deccan Chargers,Prediction:Deccan Chargers
89:Royal Challengers Bangalore:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
90:Chennai Super Kings:vs:Kings XI Punjab,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
91:Mumbai Indians:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
92:Deccan Chargers:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
93:Rajasthan Royals:vs:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
94:Mumbai Indians:Royal Challengers Bangalore,WonBy:Mumbai Indians,Prediction:Mumbai Indians
95:Kolkata Knight Riders:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kolkata Knight Riders
96:Deccan Chargers:vs:Rajasthan Royals,WonBy:Deccan Chargers,Prediction:Deccan Chargers
97:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
98:Kings XI Punjab:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Kings XI Punjab
99:Delhi Daredevils:Deccan Chargers,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
ubuntu@ip-172-31-5-213:~$
```

## Validation 3:

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
99:Delhi Daredevils:Deccan Chargers,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability
16/12/10 07:35:28 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /matchFacts
16/12/10 07:35:28 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /prediction
16/12/10 07:35:28 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /probability
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 3
16/12/10 07:35:38 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:35:38 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:35:39 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:35:39 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:35:39 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0059
16/12/10 07:35:39 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0059
16/12/10 07:35:39 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0059/
16/12/10 07:35:39 INFO mapreduce.Job: Running job: job_1481234376367_0059
16/12/10 07:35:44 INFO mapreduce.Job: Job job_1481234376367_0059 running in uber mode : false
16/12/10 07:35:44 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:35:49 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:35:54 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:35:54 INFO mapreduce.Job: Job job_1481234376367_0059 completed successfully
16/12/10 07:35:54 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55539
                FILE: Number of bytes written=344135
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=80008
                HDFS: Number of bytes written=53733
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
                WRONG_REDUCE=0
        File Input Format Counters
                Bytes Read=53733
        File Output Format Counters
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 30 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:35 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /validation2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /validation3
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation3/part-r-00000
Correct,22
InCorrect,28
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
Correct,22
InCorrect,28
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
101:Rajasthan Royals:vs:Mumbai Indians,WonBy:Rajasthan Royals,Prediction:Mumbai Indians
102:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
103:Mumbai Indians:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Mumbai Indians
104:Kolkata Knight Riders:vs:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
105:Kings XI Punjab:vs:Deccan Chargers,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
106:Delhi Daredevils:Rajasthan Royals,WonBy:Delhi Daredevils,Prediction:Rajasthan Royals
107:Chennai Super Kings:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
108:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
109:Rajasthan Royals:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
110:Chennai Super Kings:vs:Kings XI Punjab,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
111:Mumbai Indians:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
112:Royal Challengers Bangalore:Deccan Chargers,WonBy:Royal Challengers Bangalore,Prediction:Deccan Chargers
113:Delhi Daredevils:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
114:Chennai Super Kings:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Chennai Super Kings
115:Deccan Chargers:Royal Challengers Bangalore,WonBy:Deccan Chargers,Prediction:Deccan Chargers
116:Kolkata Knight Riders:vs:Deccan Chargers,WonBy:Kolkata Knight Riders,Prediction:Deccan Chargers
117:Mumbai Indians:Rajasthan Royals,WonBy:Mumbai Indians,Prediction:Mumbai Indians
118:Kings XI Punjab:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kings XI Punjab
119:Royal Challengers Bangalore:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
120:Deccan Chargers:Chennai Super Kings,WonBy:Deccan Chargers,Prediction:Deccan Chargers
121:Rajasthan Royals:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Rajasthan Royals
122:Kings XI Punjab:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kings XI Punjab
123:Chennai Super Kings:Kolkata Knight Riders,WonBy:Chennai Super Kings,Prediction:Kolkata Knight Riders
124:Mumbai Indians:Delhi Daredevils,WonBy:Mumbai Indians,Prediction:Mumbai Indians
125:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
126:Delhi Daredevils:vs:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
127:Deccan Chargers:vs:Kings XI Punjab,WonBy:Deccan Chargers,Prediction:Kings XI Punjab
128:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
129:Mumbai Indians:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
130:Deccan Chargers:Delhi Daredevils,WonBy:Deccan Chargers,Prediction:Deccan Chargers
131:Kings XI Punjab:Chennai Super Kings,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
132:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
133:Royal Challengers Bangalore:Chennai Super Kings,WonBy:Royal Challengers Bangalore,Prediction:Royal Challengers Bangalore
134:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
135:Chennai Super Kings:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
136:Deccan Chargers:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
137:Kolkata Knight Riders:vs:Kings XI Punjab,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
138:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
```

```
120:Deccan Chargers:Chennai Super Kings,WonBy:Deccan Chargers,Prediction:Deccan Chargers
121:Rajasthan Royals:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Rajasthan Royals
122:Kings XI Punjab:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kings XI Punjab
123:Chennai Super Kings:Kolkata Knight Riders,WonBy:Chennai Super Kings,Prediction:Kolkata Knight Riders
124:Mumbai Indians:Delhi Daredevils,WonBy:Mumbai Indians,Prediction:Mumbai Indians
125:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
126:Delhi Daredevils:vs:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
127:Deccan Chargers:vs:Kings XI Punjab,WonBy:Deccan Chargers,Prediction:Kings XI Punjab
128:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
129:Mumbai Indians:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
130:Deccan Chargers:Delhi Daredevils,WonBy:Deccan Chargers,Prediction:Deccan Chargers
131:Kings XI Punjab:Chennai Super Kings,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
132:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
133:Royal Challengers Bangalore:Chennai Super Kings,WonBy:Royal Challengers Bangalore,Prediction:Royal Challengers Bangalore
134:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
135:Chennai Super Kings:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
136:Deccan Chargers:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
137:Kolkata Knight Riders:vs:Kings XI Punjab,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
138:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
139:Rajasthan Royals:Chennai Super Kings,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
140:Mumbai Indians:vs:Deccan Chargers,WonBy:Mumbai Indians,Prediction:Deccan Chargers
141:Delhi Daredevils:Kolkata Knight Riders,WonBy:Delhi Daredevils,Prediction:Kolkata Knight Riders
142:Kings XI Punjab:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Kings XI Punjab
143:Royal Challengers Bangalore:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Royal Challengers Bangalore
144:Delhi Daredevils:Rajasthan Royals,WonBy:Delhi Daredevils,Prediction:Rajasthan Royals
145:Kolkata Knight Riders:vs:Deccan Chargers,WonBy:Kolkata Knight Riders,Prediction:Deccan Chargers
146:Kings XI Punjab:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kings XI Punjab
147:Chennai Super Kings:Rajasthan Royals,WonBy:Chennai Super Kings,Prediction:Rajasthan Royals
148:Mumbai Indians:vs:Deccan Chargers,WonBy:Mumbai Indians,Prediction:Deccan Chargers
149:Kolkata Knight Riders:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
150:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
ubuntu@ip-172-31-5-213:~$
```

## Validation 4:

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
149:Kolkata Knight Riders:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
150:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability
16/12/10 07:39:46 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /matchFacts
16/12/10 07:39:46 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /prediction
16/12/10 07:39:46 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /probability
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 4
16/12/10 07:39:55 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:39:55 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:39:56 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:39:56 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:39:56 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0063
16/12/10 07:39:56 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0063
16/12/10 07:39:56 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0063/
16/12/10 07:39:56 INFO mapreduce.Job: Running job: job_1481234376367_0063
16/12/10 07:40:05 INFO mapreduce.Job: Job job_1481234376367_0063 running in uber mode : false
16/12/10 07:40:05 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:40:09 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:40:14 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:40:15 INFO mapreduce.Job: Job job_1481234376367_0063 completed successfully
16/12/10 07:40:15 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55556
                FILE: Number of bytes written=344175
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=79877
                HDFS: Number of bytes written=53750
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash

        File Output Format Counters
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 31 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:40 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:40 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:40 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /validation2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /validation3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:41 /validation4
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation3/part-r-00000
Correct,22
InCorrect,28
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation4/part-r-00000
Correct,31
InCorrect,19
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash

Correct,31
InCorrect,19
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
151:Rajasthan Royals:vs:Deccan Chargers,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
152:Chennai Super Kings:vs:Mumbai Indians,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
153:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
154:Kolkata Knight Riders:Delhi Daredevils,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
155:Royal Challengers Bangalore:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
156:Mumbai Indians:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
157:Chennai Super Kings:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
158:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
159:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
160:Mumbai Indians:Rajasthan Royals,WonBy:Mumbai Indians,Prediction:Mumbai Indians
161:Deccan Chargers:Royal Challengers Bangalore,WonBy:Deccan Chargers,Prediction:Deccan Chargers
162:Mumbai Indians:Delhi Daredevils,WonBy:Mumbai Indians,Prediction:Mumbai Indians
163:Kolkata Knight Riders:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Kolkata Knight Riders
164:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
165:Chennai Super Kings:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
166:Kings XI Punjab:vs:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Kings XI Punjab
167:Mumbai Indians:Royal Challengers Bangalore,WonBy:Mumbai Indians,Prediction:Mumbai Indians
168:Rajasthan Royals:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
169:Kings XI Punjab:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Kings XI Punjab
170:Deccan Chargers:Delhi Daredevils,WonBy:Deccan Chargers,Prediction:Deccan Chargers
171:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Mumbai Indians
172:Mumbai Indians:Royal Challengers Bangalore,WonBy:Mumbai Indians,Prediction:Mumbai Indians
173:Chennai Super Kings:Deccan Chargers,WonBy:Chennai Super Kings,Prediction:Deccan Chargers
174:Deccan Chargers:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Deccan Chargers
175:Chennai Super Kings:vs:Mumbai Indians,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
176:Chennai Super Kings:vs:Kolkata Knight Riders,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
177:Deccan Chargers:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
178:Kochi Tuskers Kerala:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Royal Challengers Bangalore
179:Delhi Daredevils:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
180:Kings XI Punjab:vs:Pune Warriors,WonBy:Pune Warriors,Prediction:Kings XI Punjab
181:Kolkata Knight Riders:vs:Deccan Chargers,WonBy:Kolkata Knight Riders,Prediction:Deccan Chargers
182:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
183:Royal Challengers Bangalore:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
184:Chennai Super Kings:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
185:Kochi Tuskers Kerala:Pune Warriors,WonBy:Pune Warriors,Prediction:Pune Warriors
186:Deccan Chargers:Royal Challengers Bangalore,WonBy:Deccan Chargers,Prediction:Deccan Chargers
187:Rajasthan Royals:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
188:Mumbai Indians:Kochi Tuskers Kerala,WonBy:Kochi Tuskers Kerala,Prediction:Mumbai Indians
```

```
172:Mumbai Indians:Royal Challengers Bangalore,WonBy:Mumbai Indians,Prediction:Mumbai Indians
173:Chennai Super Kings:Deccan Chargers,WonBy:Chennai Super Kings,Prediction:Deccan Chargers
174:Deccan Chargers:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Deccan Chargers
175:Chennai Super Kings:vs:Mumbai Indians,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
176:Chennai Super Kings:vs:Kolkata Knight Riders,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
177:Deccan Chargers:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
178:Kochi Tuskers Kerala:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Royal Challengers Bangalore
179:Delhi Daredevils:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
180:Kings XI Punjab:vs:Pune Warriors,WonBy:Pune Warriors,Prediction:Kings XI Punjab
181:Kolkata Knight Riders:vs:Deccan Chargers,WonBy:Kolkata Knight Riders,Prediction:Deccan Chargers
182:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
183:Royal Challengers Bangalore:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
184:Chennai Super Kings:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
185:Kochi Tuskers Kerala:Pune Warriors,WonBy:Pune Warriors,Prediction:Pune Warriors
186:Deccan Chargers:Royal Challengers Bangalore,WonBy:Deccan Chargers,Prediction:Deccan Chargers
187:Rajasthan Royals:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
188:Mumbai Indians:Kochi Tuskers Kerala,WonBy:Kochi Tuskers Kerala,Prediction:Mumbai Indians
189:Chennai Super Kings:Royal Challengers Bangalore,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
190:Deccan Chargers:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
191:Pune Warriors:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Pune Warriors
192:Rajasthan Royals:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
193:Chennai Super Kings:Kochi Tuskers Kerala,WonBy:Kochi Tuskers Kerala,Prediction:Chennai Super Kings
194:Deccan Chargers:Delhi Daredevils,WonBy:Deccan Chargers,Prediction:Deccan Chargers
195:Pune Warriors:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
196:Kochi Tuskers Kerala:Kolkata Knight Riders,WonBy:Kochi Tuskers Kerala,Prediction:Kolkata Knight Riders
197:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
198:Mumbai Indians:Chennai Super Kings,WonBy:Mumbai Indians,Prediction:Mumbai Indians
199:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
200:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Delhi Daredevils,Prediction:Kings XI Punjab
ubuntu@ip-172-31-5-213:~$
```

## Validation 5:

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
199:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
200:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Delhi Daredevils,Prediction:Kings XI Punjab
ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability
16/12/10 07:44:50 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /matchFacts
16/12/10 07:44:50 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /prediction
16/12/10 07:44:50 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /probability
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 5
16/12/10 07:45:00 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:45:00 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:45:00 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:45:00 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:45:01 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0067
16/12/10 07:45:01 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0067
16/12/10 07:45:01 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0067/
16/12/10 07:45:01 INFO mapreduce.Job: Running job: job_1481234376367_0067
16/12/10 07:45:06 INFO mapreduce.Job: Job job_1481234376367_0067 running in uber mode : false
16/12/10 07:45:06 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:45:11 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:45:16 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:45:16 INFO mapreduce.Job: Job job_1481234376367_0067 completed successfully
16/12/10 07:45:16 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55587
                FILE: Number of bytes written=344231
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=79951
                HDFS: Number of bytes written=53781
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
                Bytes Read=53781
        File Output Format Counters
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 32 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:45 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:45 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:45 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /validation2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /validation3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:41 /validation4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:46 /validation5
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation5/part-r-00000
Correct,18
InCorrect,32
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation5/part-r-00000
Correct,18
InCorrect,32
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
201:Mumbai Indians:vs:Deccan Chargers,WonBy:Mumbai Indians,Prediction:Deccan Chargers
202:Kochi Tuskers Kerala:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
203:Chennai Super Kings:Pune Warriors,WonBy:Chennai Super Kings,Prediction:Pune Warriors
204:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
205:Pune Warriors:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Pune Warriors
206:Deccan Chargers:Kochi Tuskers Kerala,WonBy:Deccan Chargers,Prediction:Deccan Chargers
207:Kolkata Knight Riders:Delhi Daredevils,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
208:Mumbai Indians:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Mumbai Indians
209:Royal Challengers Bangalore:Pune Warriors,WonBy:Royal Challengers Bangalore,Prediction:Pune Warriors
210:Delhi Daredevils:Kochi Tuskers Kerala,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
211:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
212:Pune Warriors:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Pune Warriors
213:Chennai Super Kings:Deccan Chargers,WonBy:Chennai Super Kings,Prediction:Deccan Chargers
214:Mumbai Indians:vs:Kings XI Punjab,WonBy:Mumbai Indians,Prediction:Kings XI Punjab
215:Delhi Daredevils:Kochi Tuskers Kerala,WonBy:Kochi Tuskers Kerala,Prediction:Delhi Daredevils
216:Kolkata Knight Riders:vs:Deccan Chargers,WonBy:Kolkata Knight Riders,Prediction:Deccan Chargers
217:Rajasthan Royals:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Rajasthan Royals
218:Mumbai Indians:vs:Pune Warriors,WonBy:Mumbai Indians,Prediction:Mumbai Indians
219:Kochi Tuskers Kerala:Kolkata Knight Riders,WonBy:Kochi Tuskers Kerala,Prediction:Kolkata Knight Riders
220:Deccan Chargers:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
221:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Royal Challengers Bangalore,Prediction:Kings XI Punjab
222:Chennai Super Kings:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Chennai Super Kings
223:Mumbai Indians:Delhi Daredevils,WonBy:Mumbai Indians,Prediction:Mumbai Indians
224:Kochi Tuskers Kerala:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Royal Challengers Bangalore
225:Kings XI Punjab:vs:Pune Warriors,WonBy:Pune Warriors,Prediction:Kings XI Punjab
226:Chennai Super Kings:vs:Rajasthan Royals,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
227:Deccan Chargers:vs:Pune Warriors,WonBy:Pune Warriors,Prediction:Deccan Chargers
228:Kings XI Punjab:vs:Mumbai Indians,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
229:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
230:Chennai Super Kings:Delhi Daredevils,WonBy:Chennai Super Kings,Prediction:Delhi Daredevils
231:Kochi Tuskers Kerala:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
232:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
233:Deccan Chargers:vs:Mumbai Indians,WonBy:Deccan Chargers,Prediction:Mumbai Indians
234:Kings XI Punjab:Delhi Daredevils,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
235:Rajasthan Royals:Kochi Tuskers Kerala,WonBy:Kochi Tuskers Kerala,Prediction:Rajasthan Royals
236:Pune Warriors:vs:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
237:Kings XI Punjab:Royal Challengers Bangalore,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
```

```
222:Chennai Super Kings:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Chennai Super Kings
223:Mumbai Indians:Delhi Daredevils,WonBy:Mumbai Indians,Prediction:Mumbai Indians
224:Kochi Tuskers Kerala:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Royal Challengers Bangalore
225:Kings XI Punjab:vs:Pune Warriors,WonBy:Pune Warriors,Prediction:Kings XI Punjab
226:Chennai Super Kings:vs:Rajasthan Royals,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
227:Deccan Chargers:vs:Pune Warriors,WonBy:Pune Warriors,Prediction:Deccan Chargers
228:Kings XI Punjab:vs:Mumbai Indians,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
229:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
230:Chennai Super Kings:Delhi Daredevils,WonBy:Chennai Super Kings,Prediction:Delhi Daredevils
231:Kochi Tuskers Kerala:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
232:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
233:Deccan Chargers:vs:Mumbai Indians,WonBy:Deccan Chargers,Prediction:Mumbai Indians
234:Kings XI Punjab:Delhi Daredevils,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
235:Rajasthan Royals:Kochi Tuskers Kerala,WonBy:Kochi Tuskers Kerala,Prediction:Rajasthan Royals
236:Pune Warriors:vs:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
237:Kings XI Punjab:Royal Challengers Bangalore,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
238:Chennai Super Kings:Kochi Tuskers Kerala,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
239:Pune Warriors:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Pune Warriors
240:Mumbai Indians:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Mumbai Indians
241:Deccan Chargers:vs:Kings XI Punjab,WonBy:Deccan Chargers,Prediction:Kings XI Punjab
242:Delhi Daredevils:Pune Warriors,WonBy:null,Prediction:Pune Warriors
243:Chennai Super Kings:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Chennai Super Kings
244:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
245:Royal Challengers Bangalore:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Royal Challengers Bangalore
246:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
247:Royal Challengers Bangalore:Mumbai Indians,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
248:Chennai Super Kings:Royal Challengers Bangalore,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
249:Chennai Super Kings:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
250:Kolkata Knight Riders:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kolkata Knight Riders
ubuntu@ip-172-31-5-213:~$
```

## Validation 6:

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability
16/12/10 07:48:00 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /matchFacts
16/12/10 07:48:00 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /prediction
16/12/10 07:48:00 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /probability
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 6
16/12/10 07:48:09 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:48:09 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:48:10 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:48:10 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:48:10 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0071
16/12/10 07:48:10 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0071
16/12/10 07:48:10 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0071/
16/12/10 07:48:10 INFO mapreduce.Job: Running job: job_1481234376367_0071
16/12/10 07:48:15 INFO mapreduce.Job: Job job_1481234376367_0071 running in uber mode : false
16/12/10 07:48:15 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:48:20 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:48:25 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:48:25 INFO mapreduce.Job: Job job_1481234376367_0071 completed successfully
16/12/10 07:48:26 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55705
                FILE: Number of bytes written=344467
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=80066
                HDFS: Number of bytes written=53899
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
        File Input Format Counters
                Bytes Read=53899
        File Output Format Counters
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 33 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:48 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:48 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:48 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /validation2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /validation3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:41 /validation4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:46 /validation5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:49 /validation6
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation6/part-r-00000
Correct,23
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:49 /validation6
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation6/part-r-00000
Correct,23
InCorrect,27
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
251:Pune Warriors:vs:Mumbai Indians,WonBy:Pune Warriors,Prediction:Mumbai Indians
252:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
253:Royal Challengers Bangalore:Delhi Daredevils,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
254:Chennai Super Kings:Deccan Chargers,WonBy:Chennai Super Kings,Prediction:Deccan Chargers
255:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
256:Pune Warriors:vs:Kings XI Punjab,WonBy:Pune Warriors,Prediction:Kings XI Punjab
257:Deccan Chargers:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
258:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
259:Chennai Super Kings:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Delhi Daredevils
260:Mumbai Indians:Rajasthan Royals,WonBy:Mumbai Indians,Prediction:Mumbai Indians
261:Royal Challengers Bangalore:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Royal Challengers Bangalore
262:Pune Warriors:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
263:Rajasthan Royals:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
264:Deccan Chargers:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
265:Chennai Super Kings:Pune Warriors,WonBy:Pune Warriors,Prediction:Pune Warriors
266:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
267:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
268:Mumbai Indians:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
269:Deccan Chargers:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Deccan Chargers
270:Pune Warriors:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Pune Warriors
271:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
272:Deccan Chargers:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
273:Chennai Super Kings:Pune Warriors,WonBy:Chennai Super Kings,Prediction:Pune Warriors
274:Kings XI Punjab:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kings XI Punjab
275:Rajasthan Royals:vs:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
276:Pune Warriors:Delhi Daredevils,WonBy:Pune Warriors,Prediction:Pune Warriors
277:Mumbai Indians:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
278:Deccan Chargers:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Deccan Chargers
279:Royal Challengers Bangalore:Rajasthan Royals,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
280:Pune Warriors:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Pune Warriors
281:Kings XI Punjab:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Kings XI Punjab
282:Deccan Chargers:vs:Pune Warriors,WonBy:Deccan Chargers,Prediction:Deccan Chargers
283:Delhi Daredevils:Mumbai Indians,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
284:Kings XI Punjab:Chennai Super Kings,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
285:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
286:Delhi Daredevils:Rajasthan Royals,WonBy:Delhi Daredevils,Prediction:Rajasthan Royals
```

```
272:Deccan Chargers:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Deccan Chargers
273:Chennai Super Kings:Pune Warriors,WonBy:Chennai Super Kings,Prediction:Pune Warriors
274:Kings XI Punjab:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kings XI Punjab
275:Rajasthan Royals:vs:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
276:Pune Warriors:Delhi Daredevils,WonBy:Pune Warriors,Prediction:Pune Warriors
277:Mumbai Indians:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
278:Deccan Chargers:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Deccan Chargers
279:Royal Challengers Bangalore:Rajasthan Royals,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
280:Pune Warriors:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Pune Warriors
281:Kings XI Punjab:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Kings XI Punjab
282:Deccan Chargers:vs:Pune Warriors,WonBy:Deccan Chargers,Prediction:Deccan Chargers
283:Delhi Daredevils:Mumbai Indians,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
284:Kings XI Punjab:Chennai Super Kings,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
285:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
286:Delhi Daredevils:Rajasthan Royals,WonBy:Delhi Daredevils,Prediction:Rajasthan Royals
287:Deccan Chargers:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
288:Chennai Super Kings:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
289:Deccan Chargers:vs:Pune Warriors,WonBy:Deccan Chargers,Prediction:Deccan Chargers
290:Rajasthan Royals:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Rajasthan Royals
291:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
292:Mumbai Indians:vs:Pune Warriors,WonBy:Mumbai Indians,Prediction:Mumbai Indians
293:Chennai Super Kings:Deccan Chargers,WonBy:Chennai Super Kings,Prediction:Deccan Chargers
294:Kolkata Knight Riders:vs:Pune Warriors,WonBy:Kolkata Knight Riders,Prediction:Pune Warriors
295:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
296:Chennai Super Kings:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
297:Deccan Chargers:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Deccan Chargers
298:Delhi Daredevils:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
299:Pune Warriors:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Pune Warriors
300:Kings XI Punjab:vs:Deccan Chargers,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
ubuntu@ip-172-31-5-213:~$
```

## Validation 7:

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
300:Kings XI Punjab:vs:Deccan Chargers,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability
16/12/10 07:50:56 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /matchFacts
16/12/10 07:50:56 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /prediction
16/12/10 07:50:56 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /probability
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 7
16/12/10 07:51:04 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:51:05 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:51:05 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:51:05 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:51:05 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0075
16/12/10 07:51:05 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0075
16/12/10 07:51:05 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0075/
16/12/10 07:51:05 INFO mapreduce.Job: Running job: job_1481234376367_0075
16/12/10 07:51:14 INFO mapreduce.Job: Job job_1481234376367_0075 running in uber mode : false
16/12/10 07:51:14 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:51:19 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:51:24 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:51:24 INFO mapreduce.Job: Job job_1481234376367_0075 completed successfully
16/12/10 07:51:24 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55579
                FILE: Number of bytes written=344221
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=79845
                HDFS: Number of bytes written=53773
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
        File Output Format Counters
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 34 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:51 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:51 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:51 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /validation2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /validation3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:41 /validation4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:46 /validation5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:49 /validation6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:52 /validation7
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation7/part-r-00000
Correct,22
InCorrect,28
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:52 /validation7
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation7/part-r-00000
Correct,22
InCorrect,28
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
301:Mumbai Indians:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
302:Rajasthan Royals:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Rajasthan Royals
303:Royal Challengers Bangalore:Pune Warriors,WonBy:Royal Challengers Bangalore,Prediction:Pune Warriors
304:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Mumbai Indians,Prediction:Mumbai Indians
305:Delhi Daredevils:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Delhi Daredevils
306:Rajasthan Royals:Pune Warriors,WonBy:Rajasthan Royals,Prediction:Pune Warriors
307:Deccan Chargers:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
308:Royal Challengers Bangalore:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
309:Kolkata Knight Riders:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Kolkata Knight Riders
310:Kings XI Punjab:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kings XI Punjab
311:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Kolkata Knight Riders,Prediction:Mumbai Indians
312:Chennai Super Kings:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
313:Royal Challengers Bangalore:Delhi Daredevils,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
314:Rajasthan Royals:vs:Deccan Chargers,WonBy:Deccan Chargers,Prediction:Deccan Chargers
315:Kings XI Punjab:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kings XI Punjab
316:Kolkata Knight Riders:vs:Pune Warriors,WonBy:Kolkata Knight Riders,Prediction:Pune Warriors
317:Deccan Chargers:Royal Challengers Bangalore,WonBy:Deccan Chargers,Prediction:Deccan Chargers
318:Rajasthan Royals:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
319:Kolkata Knight Riders:Delhi Daredevils,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
320:Chennai Super Kings:Mumbai Indians,WonBy:Chennai Super Kings,Prediction:Mumbai Indians
321:Chennai Super Kings:Delhi Daredevils,WonBy:Chennai Super Kings,Prediction:Delhi Daredevils
322:Chennai Super Kings:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Chennai Super Kings
323:Delhi Daredevils:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
324:Royal Challengers Bangalore:Mumbai Indians,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
325:Sunrisers Hyderabad:vs:Pune Warriors,WonBy:Sunrisers Hyderabad,Prediction:Pune Warriors
326:Rajasthan Royals:Delhi Daredevils,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
327:Mumbai Indians:Chennai Super Kings,WonBy:Mumbai Indians,Prediction:Mumbai Indians
328:Pune Warriors:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
329:Royal Challengers Bangalore:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
330:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
331:Mumbai Indians:Delhi Daredevils,WonBy:Mumbai Indians,Prediction:Mumbai Indians
332:Kings XI Punjab:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Kings XI Punjab
333:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
334:Rajasthan Royals:Pune Warriors,WonBy:Pune Warriors,Prediction:Pune Warriors
335:Delhi Daredevils:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
336:Mumbai Indians:vs:Pune Warriors,WonBy:Mumbai Indians,Prediction:Mumbai Indians
```

```
322:Chennai Super Kings:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Chennai Super Kings
323:Delhi Daredevils:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
324:Royal Challengers Bangalore:Mumbai Indians,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
325:Sunrisers Hyderabad:vs:Pune Warriors,WonBy:Sunrisers Hyderabad,Prediction:Pune Warriors
326:Rajasthan Royals:Delhi Daredevils,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
327:Mumbai Indians:Chennai Super Kings,WonBy:Mumbai Indians,Prediction:Mumbai Indians
328:Pune Warriors:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
329:Royal Challengers Bangalore:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
330:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
331:Mumbai Indians:Delhi Daredevils,WonBy:Mumbai Indians,Prediction:Mumbai Indians
332:Kings XI Punjab:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Kings XI Punjab
333:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
334:Rajasthan Royals:Pune Warriors,WonBy:Pune Warriors,Prediction:Pune Warriors
335:Delhi Daredevils:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
336:Mumbai Indians:vs:Pune Warriors,WonBy:Mumbai Indians,Prediction:Mumbai Indians
337:Royal Challengers Bangalore:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Royal Challengers Bangalore
338:Kolkata Knight Riders:Sunrisers Hyderabad,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
339:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
340:Pune Warriors:Chennai Super Kings,WonBy:Pune Warriors,Prediction:Pune Warriors
341:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
342:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
343:Sunrisers Hyderabad:vs:Pune Warriors,WonBy:Sunrisers Hyderabad,Prediction:Pune Warriors
344:Rajasthan Royals:vs:Mumbai Indians,WonBy:Rajasthan Royals,Prediction:Mumbai Indians
345:Chennai Super Kings:vs:Delhi Daredevils,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
346:Kings XI Punjab:vs:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Kings XI Punjab
347:Kolkata Knight Riders:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Kolkata Knight Riders
348:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
349:Mumbai Indians:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
350:Pune Warriors:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
ubuntu@ip-172-31-5-213:~$
```

## Validation 8:

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
349:Mumbai Indians:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
350:Pune Warriors:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability
16/12/10 07:54:22 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /matchFacts
16/12/10 07:54:22 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /prediction
16/12/10 07:54:22 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /probability
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 8
16/12/10 07:54:32 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:54:32 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:54:33 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:54:33 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:54:33 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0079
16/12/10 07:54:33 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0079
16/12/10 07:54:33 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0079/
16/12/10 07:54:33 INFO mapreduce.Job: Running job: job_1481234376367_0079
16/12/10 07:54:38 INFO mapreduce.Job: Job job_1481234376367_0079 running in uber mode : false
16/12/10 07:54:38 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:54:42 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:54:48 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:54:48 INFO mapreduce.Job: Job job_1481234376367_0079 completed successfully
16/12/10 07:54:48 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55569
                FILE: Number of bytes written=344195
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=79887
                HDFS: Number of bytes written=53763
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
        File Output Format Counters
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 35 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:54 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:55 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:55 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /validation2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /validation3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:41 /validation4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:46 /validation5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:49 /validation6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:52 /validation7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:55 /validation8
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation8/part-r-00000
Correct,27
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:52 /validation7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:55 /validation8
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation8/part-r-00000
Correct,27
InCorrect,23
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
351:Rajasthan Royals:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Rajasthan Royals
352:Royal Challengers Bangalore:Pune Warriors,WonBy:Royal Challengers Bangalore,Prediction:Pune Warriors
353:Kings XI Punjab:Delhi Daredevils,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
354:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
355:Sunrisers Hyderabad:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Sunrisers Hyderabad
356:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
357:Sunrisers Hyderabad:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Sunrisers Hyderabad
358:Mumbai Indians:Royal Challengers Bangalore,WonBy:Mumbai Indians,Prediction:Mumbai Indians
359:Chennai Super Kings:Kolkata Knight Riders,WonBy:Chennai Super Kings,Prediction:Kolkata Knight Riders
360:Delhi Daredevils:Pune Warriors,WonBy:Delhi Daredevils,Prediction:Pune Warriors
361:Royal Challengers Bangalore:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
362:Mumbai Indians:vs:Kings XI Punjab,WonBy:Mumbai Indians,Prediction:Kings XI Punjab
363:Chennai Super Kings:Pune Warriors,WonBy:Chennai Super Kings,Prediction:Pune Warriors
364:Mumbai Indians:vs:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Mumbai Indians
365:Kolkata Knight Riders:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kolkata Knight Riders
366:Chennai Super Kings:vs:Kings XI Punjab,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
367:Royal Challengers Bangalore:Pune Warriors,WonBy:Royal Challengers Bangalore,Prediction:Pune Warriors
368:Rajasthan Royals:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
369:Delhi Daredevils:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
370:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
371:Mumbai Indians:Chennai Super Kings,WonBy:Mumbai Indians,Prediction:Mumbai Indians
372:Pune Warriors:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Pune Warriors
373:Sunrisers Hyderabad:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Sunrisers Hyderabad
374:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
375:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Mumbai Indians,Prediction:Mumbai Indians
376:Chennai Super Kings:vs:Sunrisers Hyderabad,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
377:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
378:Kolkata Knight Riders:vs:Pune Warriors,WonBy:Kolkata Knight Riders,Prediction:Pune Warriors
379:Royal Challengers Bangalore:Delhi Daredevils,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
380:Pune Warriors:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
381:Sunrisers Hyderabad:vs:Kings XI Punjab,WonBy:Sunrisers Hyderabad,Prediction:Kings XI Punjab
382:Royal Challengers Bangalore:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
383:Chennai Super Kings:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
384:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
385:Sunrisers Hyderabad:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
```

```
371:Mumbai Indians:Chennai Super Kings,WonBy:Mumbai Indians,Prediction:Mumbai Indians
372:Pune Warriors:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Pune Warriors
373:Sunrisers Hyderabad:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Sunrisers Hyderabad
374:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
375:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Mumbai Indians,Prediction:Mumbai Indians
376:Chennai Super Kings:vs:Sunrisers Hyderabad,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
377:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
378:Kolkata Knight Riders:vs:Pune Warriors,WonBy:Kolkata Knight Riders,Prediction:Pune Warriors
379:Royal Challengers Bangalore:Delhi Daredevils,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
380:Pune Warriors:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
381:Sunrisers Hyderabad:vs:Kings XI Punjab,WonBy:Sunrisers Hyderabad,Prediction:Kings XI Punjab
382:Royal Challengers Bangalore:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
383:Chennai Super Kings:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
384:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
385:Sunrisers Hyderabad:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
386:Pune Warriors:vs:Kolkata Knight Riders,WonBy:Pune Warriors,Prediction:Pune Warriors
387:Chennai Super Kings:Delhi Daredevils,WonBy:Chennai Super Kings,Prediction:Delhi Daredevils
388:Mumbai Indians:Rajasthan Royals,WonBy:Mumbai Indians,Prediction:Mumbai Indians
389:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
390:Sunrisers Hyderabad:Rajasthan Royals,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
391:Kings XI Punjab:vs:Mumbai Indians,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
392:Pune Warriors:Delhi Daredevils,WonBy:Pune Warriors,Prediction:Pune Warriors
393:Royal Challengers Bangalore:Chennai Super Kings,WonBy:Royal Challengers Bangalore,Prediction:Royal Challengers Bangalore
394:Kolkata Knight Riders:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Kolkata Knight Riders
395:Chennai Super Kings:vs:Mumbai Indians,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
396:Sunrisers Hyderabad:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Sunrisers Hyderabad
397:Rajasthan Royals:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
398:Mumbai Indians:Chennai Super Kings,WonBy:Mumbai Indians,Prediction:Mumbai Indians
399:Kolkata Knight Riders:vs:Mumbai Indians,WonBy:Kolkata Knight Riders,Prediction:Mumbai Indians
400:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
ubuntu@ip-172-31-5-213:~$
```

## Validation 9:

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability
16/12/10 07:57:58 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /matchFacts
16/12/10 07:57:58 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /prediction
16/12/10 07:57:58 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /probability
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 9
16/12/10 07:58:05 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 07:58:05 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 07:58:06 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 07:58:06 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 07:58:06 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0083
16/12/10 07:58:06 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0083
16/12/10 07:58:06 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0083/
16/12/10 07:58:06 INFO mapreduce.Job: Running job: job_1481234376367_0083
16/12/10 07:58:14 INFO mapreduce.Job: Job job_1481234376367_0083 running in uber mode : false
16/12/10 07:58:14 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 07:58:19 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 07:58:24 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 07:58:24 INFO mapreduce.Job: Job job_1481234376367_0083 completed successfully
16/12/10 07:58:25 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55474
                FILE: Number of bytes written=344011
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=79707
                HDFS: Number of bytes written=53668
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
                Launched reduce tasks=1
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 36 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:58 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:58 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:58 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /validation2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /validation3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:41 /validation4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:46 /validation5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:49 /validation6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:52 /validation7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:55 /validation8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:59 /validation9
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation9/part-r-00000
Correct,27
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:52 /validation7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:55 /validation8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:59 /validation9
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation9/part-r-00000
Correct,27
InCorrect,23
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
401:Chennai Super Kings:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
402:Sunrisers Hyderabad:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Sunrisers Hyderabad
403:Mumbai Indians:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Mumbai Indians
404:Kolkata Knight Riders:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kolkata Knight Riders
405:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
406:Chennai Super Kings:Delhi Daredevils,WonBy:Chennai Super Kings,Prediction:Delhi Daredevils
407:Kings XI Punjab:vs:Sunrisers Hyderabad,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
408:Chennai Super Kings:Rajasthan Royals,WonBy:Chennai Super Kings,Prediction:Rajasthan Royals
409:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
410:Sunrisers Hyderabad:Delhi Daredevils,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
411:Mumbai Indians:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Mumbai Indians
412:Royal Challengers Bangalore:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
413:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
414:Mumbai Indians:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
415:Sunrisers Hyderabad:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Sunrisers Hyderabad
416:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
417:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
418:Sunrisers Hyderabad:vs:Mumbai Indians,WonBy:Sunrisers Hyderabad,Prediction:Mumbai Indians
419:Chennai Super Kings:vs:Kolkata Knight Riders,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
420:Kings XI Punjab:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Kings XI Punjab
421:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
422:Sunrisers Hyderabad:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Sunrisers Hyderabad
423:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
424:Delhi Daredevils:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Delhi Daredevils
425:Mumbai Indians:Royal Challengers Bangalore,WonBy:Mumbai Indians,Prediction:Mumbai Indians
426:Delhi Daredevils:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
427:Kings XI Punjab:Chennai Super Kings,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
428:Sunrisers Hyderabad:Rajasthan Royals,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
429:Kings XI Punjab:Royal Challengers Bangalore,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
430:Delhi Daredevils:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
431:Mumbai Indians:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Mumbai Indians
432:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
433:Royal Challengers Bangalore:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
434:Sunrisers Hyderabad:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
```

```
421:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
422:Sunrisers Hyderabad:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Sunrisers Hyderabad
423:Rajasthan Royals:Kolkata Knight Riders,WonBy:Rajasthan Royals,Prediction:Kolkata Knight Riders
424:Delhi Daredevils:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Delhi Daredevils
425:Mumbai Indians:Royal Challengers Bangalore,WonBy:Mumbai Indians,Prediction:Mumbai Indians
426:Delhi Daredevils:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
427:Kings XI Punjab:Chennai Super Kings,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
428:Sunrisers Hyderabad:Rajasthan Royals,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
429:Kings XI Punjab:Royal Challengers Bangalore,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
430:Delhi Daredevils:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
431:Mumbai Indians:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Mumbai Indians
432:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
433:Royal Challengers Bangalore:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
434:Sunrisers Hyderabad:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
435:Rajasthan Royals:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Rajasthan Royals
436:Royal Challengers Bangalore:Delhi Daredevils,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
437:Sunrisers Hyderabad:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
438:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Mumbai Indians
439:Rajasthan Royals:Delhi Daredevils,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
440:Chennai Super Kings:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Chennai Super Kings
441:Sunrisers Hyderabad:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
442:Mumbai Indians:Rajasthan Royals,WonBy:Mumbai Indians,Prediction:Mumbai Indians
443:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
444:Royal Challengers Bangalore:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
445:Chennai Super Kings:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Chennai Super Kings
446:Kings XI Punjab:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Kings XI Punjab
447:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
448:Chennai Super Kings:vs:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Chennai Super Kings
449:Mumbai Indians:Delhi Daredevils,WonBy:Mumbai Indians,Prediction:Mumbai Indians
450:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
ubuntu@ip-172-31-5-213:~$
```

## Validation 10:

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
450:Kings XI Punjab:vs:Rajasthan Royals,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
ubuntu@ip-172-31-5-213:~$ hadoop fs -rm -r -f /matchFacts /prediction /probability
16/12/10 08:00:50 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /matchFacts
16/12/10 08:00:50 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /prediction
16/12/10 08:00:50 INFO fs.TrashPolicyDefault: Namenode trash configuration: Deletion interval = 0 minutes, Emptier interval = 0 mi
nutes.
Deleted /probability
ubuntu@ip-172-31-5-213:~$ hadoop jar IPLPrediction.jar 10
16/12/10 08:01:03 INFO client.RMProxy: Connecting to ResourceManager at ec2-52-55-2-64.compute-1.amazonaws.com/172.31.5.213:8032
16/12/10 08:01:04 WARN mapreduce.JobResourceUploader: Hadoop command-line option parsing not performed. Implement the Tool interfa
ce and execute your application with ToolRunner to remedy this.
16/12/10 08:01:04 INFO input.FileInputFormat: Total input paths to process : 1
16/12/10 08:01:04 INFO mapreduce.JobSubmitter: number of splits:1
16/12/10 08:01:04 INFO mapreduce.JobSubmitter: Submitting tokens for job: job_1481234376367_0087
16/12/10 08:01:04 INFO impl.YarnClientImpl: Submitted application application_1481234376367_0087
16/12/10 08:01:04 INFO mapreduce.Job: The url to track the job: http://ec2-52-55-2-64.compute-1.amazonaws.com:8088/proxy/applicati
on_1481234376367_0087/
16/12/10 08:01:04 INFO mapreduce.Job: Running job: job_1481234376367_0087
16/12/10 08:01:09 INFO mapreduce.Job: Job job_1481234376367_0087 running in uber mode : false
16/12/10 08:01:09 INFO mapreduce.Job:  map 0% reduce 0%
16/12/10 08:01:15 INFO mapreduce.Job:  map 100% reduce 0%
16/12/10 08:01:20 INFO mapreduce.Job:  map 100% reduce 100%
16/12/10 08:01:20 INFO mapreduce.Job: Job job_1481234376367_0087 completed successfully
16/12/10 08:01:20 INFO mapreduce.Job: Counters: 49
        File System Counters
                FILE: Number of bytes read=55488
                FILE: Number of bytes written=344035
                FILE: Number of read operations=0
                FILE: Number of large read operations=0
                FILE: Number of write operations=0
                HDFS: Number of bytes read=79737
                HDFS: Number of bytes written=53682
                HDFS: Number of read operations=6
                HDFS: Number of large read operations=0
                HDFS: Number of write operations=2
        Job Counters
                Launched map tasks=1
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
                Bytes Written=0
ubuntu@ip-172-31-5-213:~$ hadoop fs -ls /
Found 37 items
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 08:01 /matchFacts
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 08:56 /matches
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 08:01 /prediction
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 08:01 /probability
drwxr-xr-x   - ubuntu supergroup          0 2016-12-08 22:00 /refer
drwxr-xr-x   - ubuntu supergroup          0 2016-12-09 05:58 /testDataSet
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:52 /testDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:51 /testDataSet9
drwxrwx---   - ubuntu supergroup          0 2016-12-08 21:59 /tmp
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:46 /trainDataSet2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:47 /trainDataSet7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 06:48 /trainDataSet9
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:05 /validation1
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 08:02 /validation10
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:26 /validation2
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:36 /validation3
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:41 /validation4
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:46 /validation5
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:49 /validation6
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:52 /validation7
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:55 /validation8
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:59 /validation9
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation10/part-r-00000
```

```
ubuntu@ip-172-31-5-213: ~ — ssh nameno...   ubuntu@ip-172-31-12-22: /usr/local/hadoo...   ubuntu@ip-172-31-12-21: /usr/local/hadoo...   ubuntu@ip-172-31-12-20: /usr/local/hadoo...   ...ocuments/DataMining/FinalProject — -bash
drwxr-xr-x   - ubuntu supergroup          0 2016-12-10 07:59 /validation9
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /validation10/part-r-00000
Correct,24
InCorrect,26
ubuntu@ip-172-31-5-213:~$ hadoop fs -cat /prediction/part-r-00000
451:Royal Challengers Bangalore:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Royal Challengers Bangalore
452:Sunrisers Hyderabad:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
453:Delhi Daredevils:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
454:Rajasthan Royals:vs:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
455:Kolkata Knight Riders:vs:Kings XI Punjab,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
456:Mumbai Indians:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Mumbai Indians
457:Kings XI Punjab:Chennai Super Kings,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
458:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
459:Mumbai Indians:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Mumbai Indians
460:Chennai Super Kings:vs:Delhi Daredevils,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
461:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Rajasthan Royals,Prediction:Kings XI Punjab
462:Chennai Super Kings:Sunrisers Hyderabad,WonBy:Chennai Super Kings,Prediction:Sunrisers Hyderabad
463:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
464:Delhi Daredevils:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
465:Kings XI Punjab:vs:Mumbai Indians,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
466:Royal Challengers Bangalore:Sunrisers Hyderabad,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
467:Mumbai Indians:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Mumbai Indians
468:Chennai Super Kings:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
469:Kings XI Punjab:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kings XI Punjab
470:Sunrisers Hyderabad:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Sunrisers Hyderabad
471:Mumbai Indians:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Mumbai Indians
472:Delhi Daredevils:Sunrisers Hyderabad,WonBy:Delhi Daredevils,Prediction:Sunrisers Hyderabad
473:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
474:Chennai Super Kings:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
475:Mumbai Indians:Royal Challengers Bangalore,WonBy:Mumbai Indians,Prediction:Mumbai Indians
476:Delhi Daredevils:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
477:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
478:Sunrisers Hyderabad:Kolkata Knight Riders,WonBy:Sunrisers Hyderabad,Prediction:Kolkata Knight Riders
479:Chennai Super Kings:Royal Challengers Bangalore,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
480:Delhi Daredevils:Mumbai Indians,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
481:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
482:Mumbai Indians:vs:Sunrisers Hyderabad,WonBy:Mumbai Indians,Prediction:Mumbai Indians
483:Chennai Super Kings:Kings XI Punjab,WonBy:Chennai Super Kings,Prediction:Kings XI Punjab
484:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
485:Sunrisers Hyderabad:vs:Kings XI Punjab,WonBy:Sunrisers Hyderabad,Prediction:Kings XI Punjab
486:Kolkata Knight Riders:Delhi Daredevils,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
```

```
468:Chennai Super Kings:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
469:Kings XI Punjab:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kings XI Punjab
470:Sunrisers Hyderabad:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Sunrisers Hyderabad
471:Mumbai Indians:Chennai Super Kings,WonBy:Chennai Super Kings,Prediction:Mumbai Indians
472:Delhi Daredevils:Sunrisers Hyderabad,WonBy:Delhi Daredevils,Prediction:Sunrisers Hyderabad
473:Kings XI Punjab:vs:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kings XI Punjab
474:Chennai Super Kings:Rajasthan Royals,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
475:Mumbai Indians:Royal Challengers Bangalore,WonBy:Mumbai Indians,Prediction:Mumbai Indians
476:Delhi Daredevils:Kolkata Knight Riders,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
477:Rajasthan Royals:vs:Kings XI Punjab,WonBy:Kings XI Punjab,Prediction:Kings XI Punjab
478:Sunrisers Hyderabad:Kolkata Knight Riders,WonBy:Sunrisers Hyderabad,Prediction:Kolkata Knight Riders
479:Chennai Super Kings:Royal Challengers Bangalore,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
480:Delhi Daredevils:Mumbai Indians,WonBy:Delhi Daredevils,Prediction:Mumbai Indians
481:Rajasthan Royals:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Rajasthan Royals
482:Mumbai Indians:vs:Sunrisers Hyderabad,WonBy:Mumbai Indians,Prediction:Mumbai Indians
483:Chennai Super Kings:Kings XI Punjab,WonBy:Chennai Super Kings,Prediction:Kings XI Punjab
484:Delhi Daredevils:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Delhi Daredevils
485:Sunrisers Hyderabad:vs:Kings XI Punjab,WonBy:Sunrisers Hyderabad,Prediction:Kings XI Punjab
486:Kolkata Knight Riders:Delhi Daredevils,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
487:Royal Challengers Bangalore:Rajasthan Royals,WonBy:null,Prediction:Rajasthan Royals
488:Chennai Super Kings:Kolkata Knight Riders,WonBy:Chennai Super Kings,Prediction:Kolkata Knight Riders
489:Kings XI Punjab:Delhi Daredevils,WonBy:Delhi Daredevils,Prediction:Kings XI Punjab
490:Mumbai Indians:Rajasthan Royals,WonBy:Mumbai Indians,Prediction:Mumbai Indians
491:Kolkata Knight Riders:Royal Challengers Bangalore,WonBy:Royal Challengers Bangalore,Prediction:Kolkata Knight Riders
492:Sunrisers Hyderabad:Chennai Super Kings,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
493:Mumbai Indians:vs:Kings XI Punjab,WonBy:Mumbai Indians,Prediction:Kings XI Punjab
494:Rajasthan Royals:Delhi Daredevils,WonBy:Rajasthan Royals,Prediction:Rajasthan Royals
495:Chennai Super Kings:Royal Challengers Bangalore,WonBy:Chennai Super Kings,Prediction:Chennai Super Kings
496:Kolkata Knight Riders:Sunrisers Hyderabad,WonBy:Kolkata Knight Riders,Prediction:Kolkata Knight Riders
497:Delhi Daredevils:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
498:Royal Challengers Bangalore:Kings XI Punjab,WonBy:Royal Challengers Bangalore,Prediction:Kings XI Punjab
499:Sunrisers Hyderabad:Rajasthan Royals,WonBy:Sunrisers Hyderabad,Prediction:Sunrisers Hyderabad
500:Chennai Super Kings:Mumbai Indians,WonBy:Mumbai Indians,Prediction:Mumbai Indians
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