GOVARDHAN_DIGUMURTHI_PROGRAM_2

MAP REDUCE JOBS

1.PROGRAM TO COUNT NUMBER OF ROWS IN JAVA USING MAP REDUCE

```
/*importing the required packages*/
import java.io.IOException;

import java.util.*;

import org.apache.hadoop.fs.Path;

import org.apache.hadoop.io.*;

import org.apache.hadoop.mapred.*;

/*declaring abstract class RowCount*/
public class RowCount

{//mapper phase
   public static class Map extends MapReduceBase implements
         Mapper<LongWritable, Text, Text, IntWritable>

{
   private final static IntWritable one = new IntWritable(1);
   private Text word = new Text("Total Number of Rows : ");
public void map(LongWritable key, Text value,
         OutputCollector<Text, IntWritable> output,Reporter reporter)
         throws IOException
   {
      output.collect(word, one);
   }
}
//reducer phase
public static class Reduce extends MapReduceBase implements
      Reducer<Text, IntWritable, Text, IntWritable> {
   public void reduce(Text key, Iterator<IntWritable> values,
         OutputCollector<Text, IntWritable> output, Reporter reporter)
         throws IOException {
      int sum = 0;
```

```
while (values.hasNext()) {
          sum += values.next().get();
       }
output.collect(key, new IntWritable(sum));
   }
}

/*main driver code that is job from which mapper and reducer are invoked*/
public static void main(String[] args) throws Exception {
   JobConf conf = new JobConf(RowCount.class);


   conf.setJobName("RowCount");
   conf.setNumReduceTasks(5);
   conf.setOutputKeyClass(Text.class);
   conf.setOutputValueClass(IntWritable.class);


   conf.setMapperClass(Map.class);
   conf.setCombinerClass(Reduce.class);
   conf.setReducerClass(Reduce.class);


   conf.setInputFormat(TextInputFormat.class);
conf.setOutputFormat(TextOutputFormat.class);


   FileInputFormat.setInputPaths(conf, new Path(args[0]));
   FileOutputFormat.setOutputPath(conf, new Path(args[1]));


   JobClient.runJob(conf);
}
}
```