|  |  |
| --- | --- |
|  | |
| import java.io.IOException; | |
|  | |  | |
|  | | import org.apache.hadoop.conf.Configuration; | |
|  | | import org.apache.hadoop.fs.Path; | |
|  | | import org.apache.hadoop.io.LongWritable; | |
|  | | import org.apache.hadoop.io.NullWritable; | |
|  | | import org.apache.hadoop.io.DoubleWritable; | |
|  | | import org.apache.hadoop.io.Text; | |
|  | | import org.apache.hadoop.mapreduce.Job; | |
|  | | import org.apache.hadoop.mapreduce.Mapper; | |
|  | | import org.apache.hadoop.mapreduce.Reducer; | |
|  | | import org.apache.hadoop.mapreduce.lib.input.FileInputFormat; | |
|  | | import org.apache.hadoop.mapreduce.lib.output.FileOutputFormat; | |
|  | |  | |
|  | |  | |
|  | | public class AvgGrowthSort { | |
|  | |  | |
|  | | // Mapper Class | |
|  | |  | |
|  | | public static class AvgGrowthSortMapperClass extends Mapper<LongWritable,Text,DoubleWritable,Text> | |
|  | | { | |
|  | | public void map(LongWritable key, Text value, Context context) | |
|  | | { | |
|  | | try{ | |
|  | | String[] str = value.toString().split(","); | |
|  | | double avg\_growth = Double.parseDouble(str[4]); | |
|  | | context.write(new DoubleWritable(avg\_growth), value); | |
|  | | } | |
|  | | catch(Exception e) | |
|  | | { | |
|  | | System.out.println(e.getMessage()); | |
|  | | } | |
|  | | } | |
|  | | } | |
|  | |  | |
|  | | //Reducer class | |
|  | |  | |
|  | | public static class AvgGrowthSortReducerClass extends Reducer<DoubleWritable,Text,NullWritable,Text> | |
|  | | { | |
|  | | public void reduce(DoubleWritable key, Iterable <Text> values, Context context) throws IOException, InterruptedException | |
|  | | { | |
|  | | for (Text val : values) | |
|  | | { | |
|  | | context.write(NullWritable.get(), val); | |
|  | | } | |
|  | | } | |
|  | | } | |
|  | |  | |
|  | | //Main class | |
|  | |  | |
|  | | public static void main(String[] args) throws Exception { | |
|  | |  | |
|  | | Configuration conf = new Configuration(); | |
|  | | Job job = Job.getInstance(conf, "Avg Growth Sorting"); | |
|  | | job.setJarByClass(AvgGrowthSort.class); | |
|  | | job.setMapperClass(AvgGrowthSortMapperClass.class); | |
|  | | job.setReducerClass(AvgGrowthSortReducerClass.class); | |
|  | | job.setMapOutputKeyClass(DoubleWritable.class); | |
|  | | job.setMapOutputValueClass(Text.class); | |
|  | | job.setOutputKeyClass(NullWritable.class); | |
|  | | job.setOutputValueClass(Text.class); | |
|  | | FileInputFormat.addInputPath(job, new Path(args[0])); | |
|  | | FileOutputFormat.setOutputPath(job, new Path(args[1])); | |
|  | | System.exit(job.waitForCompletion(true) ? 0 : 1); | |
|  | | } | |
|  | | } | |