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// SalesCountryRunner.java

package SalesCountry;

import org.apache.hadoop.fs.Path;
import org.apache.hadoop.io.*;
import org.apache.hadoop.mapred.*;

public class SalesCountryRunner {
    public static void main(String[] args) {
        JobClient my_client = new JobClient();
        // Create a configuration object for the job
        JobConf job_conf = new JobConf(SalesCountryDriver.class);

        // Set a name of the Job
        job_conf.setJobName("SalePerCountry");

        // Specify data type of output key and value
        job_conf.setOutputKeyClass(Text.class);
        job_conf.setOutputValueClass(IntWritable.class);

        // Specify names of Mapper and Reducer Class
        job_conf.setMapperClass(SalesCountry.SalesMapper.class);
        job_conf.setReducerClass(SalesCountry.SalesCountryReducer.class);

        // Specify formats of the data type of Input and output
        job_conf.setInputFormat(TextInputFormat.class);
        job_conf.setOutputFormat(TextOutputFormat.class);

        // Set input and output directories using command line arguments,
        //arg[0] = name of input directory on HDFS, and arg[1] = name of output
        directory to be created to store the output file.

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

        my_client.setConf(job_conf);
        try {
            // Run the job
            JobClient.runJob(job_conf);
        } catch (Exception e) {
            e.printStackTrace();
        }
    }
}

```

```
// SalesMapper.java

package SalesCountry;

import java.io.IOException;

import org.apache.hadoop.io.IntWritable;
import org.apache.hadoop.io.LongWritable;
import org.apache.hadoop.io.Text;
import org.apache.hadoop.mapred.*;

public class SalesMapper extends MapReduceBase implements Mapper<LongWritable, Text, Text,
IntWritable> {
    private final static IntWritable one = new IntWritable(1);

    public void map(LongWritable key, Text value, OutputCollector<Text, IntWritable>
output, Reporter reporter) throws IOException {

        String valueString = value.toString();
        String[] SingleCountryData = valueString.split(",");
        output.collect(new Text(SingleCountryData[7]), one);
    }
}
```

```

// SalesCountryReducer.java

package SalesCountry;

import java.io.IOException;
import java.util.*;

import org.apache.hadoop.io.IntWritable;
import org.apache.hadoop.io.Text;
import org.apache.hadoop.mapred.*;

public class SalesCountryReducer extends MapReduceBase implements Reducer<Text, IntWritable,
Text, IntWritable> {

    public void reduce(Text t_key, Iterator<IntWritable> values,
OutputCollector<Text,IntWritable> output, Reporter reporter) throws IOException {
        Text key = t_key;
        int frequencyForCountry = 0;
        while (values.hasNext()) {
            // replace type of value with the actual type of our value
            IntWritable value = (IntWritable) values.next();
            frequencyForCountry += value.get();
        }
        output.collect(key, new IntWritable(frequencyForCountry));
    }
}

```

## Output:

Argentina	1	
Australia	38	
Austria	7	
Bahrain	1	
Belgium	8	
Bermuda	1	
Brazil	5	
Bulgaria	1	
CO	1	
Canada	76	
Cayman Isls	1	
China	1	
Costa Rica	1	
Country	1	
Czech Republic	3	
Denmark	15	
Dominican Republic	1	
Finland	2	
France	27	
Germany	25	
Greece	1	
Guatemala	1	
Hong Kong	1	
Hungary	3	
Iceland	1	
India	2	
Ireland	49	
Israel	1	
Italy	15	
Japan	2	
Jersey	1	
Kuwait	1	
Latvia	1	
Luxembourg	1	
Malaysia	1	
Malta	2	
Mauritius	1	
Moldova	1	
Monaco	2	
Netherlands	22	
New Zealand	6	
Norway	16	
Philippines	2	
Poland	2	
Romania	1	
Russia	1	
South Africa	5	

South Korea	1	
Spain	12	
Sweden	13	
Switzerland	36	
Thailand	2	
The Bahamas	2	
Turkey	6	
Ukraine	1	
United Arab Emirates		6
United Kingdom	100	
United States	462	