1. **Create a WordCount Project, Make a Java class File and write this code.**

**import** java.io.IOException;

**import** java.util.\*;

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

**import** org.apache.hadoop.conf.\*;

**import** org.apache.hadoop.io.\*;

**import** org.apache.hadoop.mapreduce.\*;

**import** org.apache.hadoop.mapreduce.lib.input.FileInputFormat;

**import** org.apache.hadoop.mapreduce.lib.input.TextInputFormat;

**import** org.apache.hadoop.mapreduce.lib.output.FileOutputFormat;

**import** org.apache.hadoop.mapreduce.lib.output.TextOutputFormat;

**public** **class** WordCount {

**public** **static** **class** Map **extends** Mapper<LongWritable, Text, Text, IntWritable> {

**private** **final** **static** IntWritable ***one*** = **new** IntWritable(1);

**private** Text word = **new** Text();

**public** **void** map(LongWritable key, Text value, Context context) **throws** IOException, InterruptedException {

String line = value.toString();

StringTokenizer tokenizer = **new** StringTokenizer(line);

**while** (tokenizer.hasMoreTokens()) {

word.set(tokenizer.nextToken());

context.write(word, ***one***); } } }

**public** **static** **class** Reduce **extends** Reducer<Text, IntWritable, Text, IntWritable> {

**public** **void** reduce(Text key, Iterable<IntWritable> values, Context context)

**throws** IOException, InterruptedException {

**int** sum = 0;

**for** (IntWritable val : values) {

sum += val.get();

}

context.write(key, **new** IntWritable(sum));

}

}

**public** **static** **void** main(String[] args) **throws** Exception {

Configuration conf = **new** Configuration();

Job job = Job.getInstance(conf, "word count"); job.setOutputKeyClass(Text.**class**);

job.setOutputValueClass(IntWritable.**class**);

job.setMapperClass(Map.**class**);

job.setReducerClass(Reduce.**class**);

job.setInputFormatClass(TextInputFormat.**class**);

job.setOutputFormatClass(TextOutputFormat.**class**);

FileInputFormat.*addInputPath*(job, **new** Path(args[0]));

FileOutputFormat.*setOutputPath*(job, **new** Path(args[1]));

job.waitForCompletion(**true**);

}

}

1. **Add external libraries from hadoop.**

Right click on WordCount Project -> Build Path -> Configure Build Path -> Click on Libraries -> click on  ‘Add External Jars..’ button.

**Select files from share/hadoop/common folder.**

* Add jar files from /hadoop/share/hadoop/common folder
* Add jar files from /hadoop/share/hadoop/common/lib folder.
* Add jar files from /hadoop/share/hadoop/mapreduce folder (Don’t need to add hadoop-mapreduce-examples.jar)
* Add jar files from /hadoop/share/hadoop/yarn folder.

1. **Now we have to export it as a jar.** Right click on WordCount project and select "Export..."**.**
2. **Time to run MapReduce job:**

**C:\hadoop\bin>hadoop jar /hadoop/WordCount.jar WordCount /input/test.txt /output**