

LAB-07:-* WMapper.java

```
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.MapReduceBase;
import org.apache.hadoop.mapred.Mapper;
import org.apache.hadoop.mapred.OutputCollector;
import org.apache.hadoop.mapred.Reporter;
```

```
public class WMapper extends MapReduceBase
implements Mapper<LongWritable, Text, Text,
IntWritable> {
```

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

```
        String line = value.toString();
        for(String word: line.split(" ")) {
            if (word.length() > 0) {
                output.collect(new Text(word), new
                IntWritable(1));
            }
        }
    }
```

```
}
```

```
}
```


WCReducer.java

```
import java.io.IOException;
import java.util.Iterator;
import org.apache.hadoop.io.IntWritable;
import org.apache.hadoop.io.Text;
import org.apache.hadoop.mapred.MapReduceBase;
import org.apache.hadoop.mapred.OutputCollector;
import org.apache.hadoop.mapred.Reducer;
```

```
public class WCReducer extends MapReduceBase
implements Reduc<Text, Int>
```

```
{
    public void Reduce (Text key, Iterator<IntWritable>
    values, outputCollector
```

```
    int count=0;
```

```
    while (value, Next())
```

```
{
```

```
    IntWritable i=value.next();
```

```
    count+=i.get();
```

```
}
```

```
    outputCollector.collect(key, new IntWritable (count));
```

```
}
```

WC Driver.java

```
import java.io.IOException;
import org.apache.hadoop.conf.Configuration;
import org.apache.hadoop.fs.Path;
import org.apache.hadoop.io.IntWritable;
import org.apache.hadoop.io.Text;
import org.apache.hadoop.mapred.FileInputFormat;
```



```
import org.apache.hadoop.mapred.FileOutputFormat;
import org.apache.hadoop.mapred.JobConf;
import org.apache.hadoop.util.Tool;
import org.apache.hadoop.util.ToolRunner;
```

```
public class WcDriver extends Configured
implements Tool {
    public int run (String args[]) throws
    IOException {
```

```
        if (args.length < 2) {
            System.out.println("Please give valid
            inputs");
            return -1;
        }
```

```
        JobConf conf = new JobConf (WcDriver.class);
        FileInputFormat.setInputPaths (conf,
        new Path (args[0]));
        FileOutputFormat.setOutputPaths (conf,
        new Path (args[1]));
        conf.setMapperClass (WcMapper.class);
        conf.setReducerClass (WcReducer.class);
        conf.setMapOutputKeyClass (Text.class);
        JobClient.runJob (conf);
        return 0;
    }
```

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

```
        int exitCode = ToolRunner.run (new WcDriver(),
        args);
        System.out.println (exitCode);
    }
}
```