Lab 7:

WC Mapper. Java

```java
import java.io.IOException;
import org.apache.hadoop.io.IntWrite;
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 WCMapper extends MapReduceBase
implements Mapper<LongWritable, Text, Text,
IntWritable> {
public void map(LongWritable key, Text value,
output Collector <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));
        }
    }
}
}
```

WC Driver.java

```java
import java.io.IOException;
import java.util.Iterator;
import org.apache.hadoop.io.IntWritable;
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;
import org.apache.hadoop.mapred.Reporter;

public class WCReducer extends MapReduceBase
implements Reducer<Text, IntWritable, Text,
IntWritable> {
public void reduce (Text key, Iterator
<IntWritable> value,
outputCollector <Text, IntWritable> output,
  Reporter rep) throws Exception
{
  int count=0;
  while (value.hasNext())
{
    IntWritable i = value.next();
    count += i.get();
}
  output.collect (key, new IntWritable (count));
}
}
```

L6

```java
WC Reducer.java
import java.io.IOException;
import org.apache.hadoop.conf.Configured;
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.JobClient;
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 ipt");
            return -1;
        }
        JobConf conf = new JobConf(WCDriver.class);
        FileInputFormat.setInputPaths(conf,
        new Path(args[0]));
        FileOutputFormat.setInputPaths(conf,
        new path(args[1]));
        conf.setMapperClass(WCMapper.class);
        conf.setReducerClass(WCReducer.class);
        conf.setMapOutputKeyClass(Text.class);
        conf.setMapOutputKeyClass(Text.class);
        conf.setMapOutputValueClass(IntWritable.class);
        conf.setOutputValueClass(IntWritable.class);
        JobClient.runJob(conf);
```

```java
    return 0;
}
public static void main(String args[]) throws Exception
{
    int exitCode = Tool Runner.run (new WC Document,
    args);
    System.out.println (exitCode);
}
}
```