

# Assignment Big Data

Date:12-08-2022

Q) Write a program to find average word length

```
import java.io.IOException;
import java.util.*;
import org.apache.hadoop.fs.Path;
import org.apache.hadoop.io.DoubleWritable;
import org.apache.hadoop.io.IntWritable;
import org.apache.hadoop.io.Text;
import org.apache.hadoop.mapreduce.Reducer.Context;
import org.apache.hadoop.mapreduce.lib.input.FileInputFormat;
import org.apache.hadoop.mapreduce.lib.output.FileOutputFormat;
import org.apache.hadoop.mapreduce.Job;
import org.apache.hadoop.io.LongWritable;
import org.apache.hadoop.mapreduce.Mapper;
import org.apache.hadoop.mapreduce.Reducer;

public class Average {

    public static class WordMapper extends Mapper <LongWritable, Text, Text, IntWritable>
    {
        @Override
        public void map(LongWritable key, Text value, Context context)
        throws IOException, InterruptedException{
            Text firstLetter = new Text();
            IntWritable wordLength = new IntWritable();
            char[] a1 = null;
            String line = value.toString().toLowerCase();

            for(String word:line.split(" ")){

                if (word.length() > 0) {

                    firstLetter.set(String.valueOf(word.charAt(0)));

                    wordLength.set(word.length());
                    context.write(firstLetter, wordLength);
                }
            }
        }

        public static class SumReducer extends Reducer<Text,IntWritable,Text,IntWritable>{
            public void reduce(Text key,Iterable<IntWritable>values,Context context)
            throws IOException,InterruptedException{
                int sum =0;
                int count =0;
                int Average =0;
                for(IntWritable val:values) {
                    sum += val.get();
                }
            }
        }
    }
}
```

```

        count = count+1;
    }
    Average = sum/count;

    context.write(key,new IntWritable(Average));
}

}

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

    if(args.length != 2){
        System.out.printf(
            "Usage: WordCount <input dir> <output dir> \n");

        System.exit(-1);
    }

    Job job = new Job();

    job.setJarByClass(Average.class);

    job.setJobName("Word Count");

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

    job.setMapperClass(WordMapper.class);
    job.setReducerClass(SumReducer.class);

    job.setOutputKeyClass(Text.class);
    job.setOutputValueClass(IntWritable.class);

    boolean success = job.waitForCompletion(true);
    System.exit(success ? 0 : 1);
}
}

```

eclipse



Videos

lib



apache-flume-1.4.0-  
bin.tar.gz

Music



average011.jar

**File:** [/user/training/output10/part-r-00000](#)

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Goto :

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[Go back to dir listing](#)

[Advanced view/download options](#)

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a	8
c	7
e	5
f	5
g	7
h	5
i	2
k	2
m	7
p	9
s	7
t	2
v	6
w	6
y	4