

Link to the log file:

https://drive.google.com/file/d/109WGNAT_j4PHI66F05hiz6rdWPuzkNmt/view?usp=drivesdk

Code:

```
import java.io.IOException;
import java.text.ParseException;
import org.apache.hadoop.conf.Configuration;
import org.apache.hadoop.fs.Path;
import org.apache.hadoop.io.IntWritable;
import org.apache.hadoop.io.LongWritable;
import org.apache.hadoop.io.Text;
import org.apache.hadoop.mapreduce.Job;
import org.apache.hadoop.mapreduce.Mapper;
import org.apache.hadoop.mapreduce.Reducer;
import org.apache.hadoop.mapreduce.lib.input.FileInputFormat;
import org.apache.hadoop.mapreduce.lib.output.FileOutputFormat;
import org.apache.hadoop.util.GenericOptionsParser;

public class LogFile {
    public static void main(String [] args) throws Exception{
        Configuration c = new Configuration();
        String[] files = new GenericOptionsParser(c,args).getRemainingArgs();
        Path input=new Path(files[0]);
        Path output=new Path(files[1]);
        Job j=new Job(c,"Logfile");
        j.setJarByClass(LogFile.class);
        j.setMapperClass(MapForWordCount.class);
        j.setReducerClass(ReduceForWordCount.class);
        j.setOutputKeyClass(Text.class);
        j.setOutputValueClass(IntWritable.class);
        FileInputFormat.addInputPath(j, input);
        FileOutputFormat.setOutputPath(j, output);
        System.exit(j.waitForCompletion(true)?0:1);
    }

    public static class MapForWordCount extends Mapper<LongWritable, Text, Text,
    IntWritable>{
        public void map(LongWritable key, Text value, Context con) throws IOException,
        InterruptedException{
            String text = value.toString();
            String[] words=text.split(" ");
            Text outputKey = new Text(words[0].toUpperCase().trim());
            int datein = Integer.parseInt(words[1]);
            int dateout = Integer.parseInt(words[2]);
```

```

        long total = dateout - datein;
        int total_in = (int) total;
        IntWritable outputValue = new IntWritable(total_in);
        con.write(outputKey, outputValue);
    }
}

public static class ReduceForWordCount extends Reducer<Text, IntWritable, Text,
IntWritable>{
    int max=0;
    Text maxWord = new Text();
    int min=999;
    Text minWord = new Text();

    public void reduce(Text key, Iterable<IntWritable> values, Context con) throws
IOException, InterruptedException{
        int sum = 0;

        for(IntWritable value : values)
            sum += value.get();

        if(max<sum){
            max = sum;
            maxWord.set(key);
        }
        if(min>sum){
            min = sum;
            minWord.set(key);
        }

    }

    @Override
    protected void cleanup(Context context) throws IOException, InterruptedException {
        context.write(maxWord, new IntWritable(max));
        context.write(minWord, new IntWritable(min));
    }
}
}

```