

Case study 1

Movie ratings

Code for Mapper-

```
import java.io.IOException;
import org.apache.hadoop.io.LongWritable;
import org.apache.hadoop.io.Text;
import org.apache.hadoop.mapreduce.Mapper;

public class CaseStudyIUseCasesMoviesMapper extends
    Mapper<LongWritable, Text, Text, Text> {

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

        try {
            if (key.get() == 0 && value.toString().contains("movieid")){
                return;
            } else {
                String record = value.toString();
                String[] parts = record.split(",");
                context.write(new Text(parts[0]), new Text("movies\t" +
                    parts[1]));
            }
        }
    }
}
```

```

    }
} catch (Exception e) {
    e.printStackTrace();
}
}
}
}

```

Reducer code-

```
import java.io.IOException;
```

```
import org.apache.hadoop.io.Text;
```

```
import org.apache.hadoop.mapreduce.Reducer;
```

```
public class CaseStudyIUseCasesReducer extends
```

```
    Reducer<Text, Text, Text, Text> {
```

```

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

```

```
        throws IOException, InterruptedException {
```

```
        String titles = "";
```

```
        double total = 0.0;
```

```
        int count = 0;
```

```
        System.out.println("Text Key    =>" + key.toString());
```

```
        for (Text t : values) {
```

```
            String parts[] = t.toString().split("\t");
```

```

        System.out.println("Text values =>" + t.toString());
        if (parts[0].equals("ratings")) {
            count++;
            String rating = parts[1].trim();
            System.out.println("Rating is =>" + rating);
            total += Double.parseDouble(rating);
        } else if (parts[0].equals("movies")) {
            titles = parts[1];
        }
    }

    double average = total / count;
    String str = String.format("%d\t%f", count, average);
    //String str = String.format("%d", count);

    context.write(new Text(titles), new Text(str));
}
}

```