**AIM:** To write a map reduce program to compute average movie rating of movies .

**PROGRAM:**

**/\*MAPPER\*/**

import java.util.\*;

import java.io.\*;

import org.apache.hadoop.io.\*;

import org.apache.hadoop.mapreduce.\*;

public class RMapper extends Mapper<LongWritable, Text, Text, LongWritable>

{

int i;

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

{

String line = value.toString();

String[] wordsinline = line.split("\t");

int rate=Integer.parseInt(wordsinline[2]);

contex.write(new Text(wordsinline[0]),new LongWritable(rate));

}

}

**/\*REDUCER\*/**

import java.util.\*;

import java.io.\*;

import org.apache.hadoop.io.\*;

import org.apache.hadoop.mapreduce.\*;

public class RReducer extends Reducer<Text,LongWritable, Text, DoubleWritable>

{

public void reduce(Text key, Iterable<LongWritable> values, Context context) throws IOException, InterruptedException

{

double sum\_rate = 0;

double count=0;

for(LongWritable val:values)

{

sum\_rate = sum\_rate + val.get();

count++;

}

double avg\_rate=sum\_rate/count;

context.write(key,new DoubleWritable(avg\_rate));

}

}

**/\*DRIVER\*/**

import java.util.\*;

import java.io.\*;

import org.apache.hadoop.io.\*;

import org.apache.hadoop.mapreduce.\*;

import org.apache.hadoop.fs.Path;

import org.apache.hadoop.conf.Configuration;

import org.apache.hadoop.mapreduce.lib.input.FileInputFormat;

import org.apache.hadoop.mapreduce.lib.input.TextInputFormat;

import org.apache.hadoop.mapreduce.lib.output.FileOutputFormat;

import org.apache.hadoop.mapreduce.lib.output.TextOutputFormat;

public class RDriver

{

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

{

Configuration conf = new Configuration();

Job job = Job.getInstance(conf,"xyz");

job.setMapOutputKeyClass(Text.class);

job.setMapOutputValueClass(LongWritable.class);

job.setOutputKeyClass(Text.class);

job.setOutputValueClass(DoubleWritable.class);

job.setMapperClass(RMapper.class);

job.setReducerClass(RReducer.class);

FileInputFormat.addInputPath(job, new Path(args[0]));

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

job.setJarByClass(RDriver.class);

job.waitForCompletion(true);

}

}

**OUTPUT:**

