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C1 BATCH

Exercise-4: MAPREDUCE

Initially create a new project, package and class in eclipse to run a java code.

To install jar files:

Right click on project (Mapreduce)

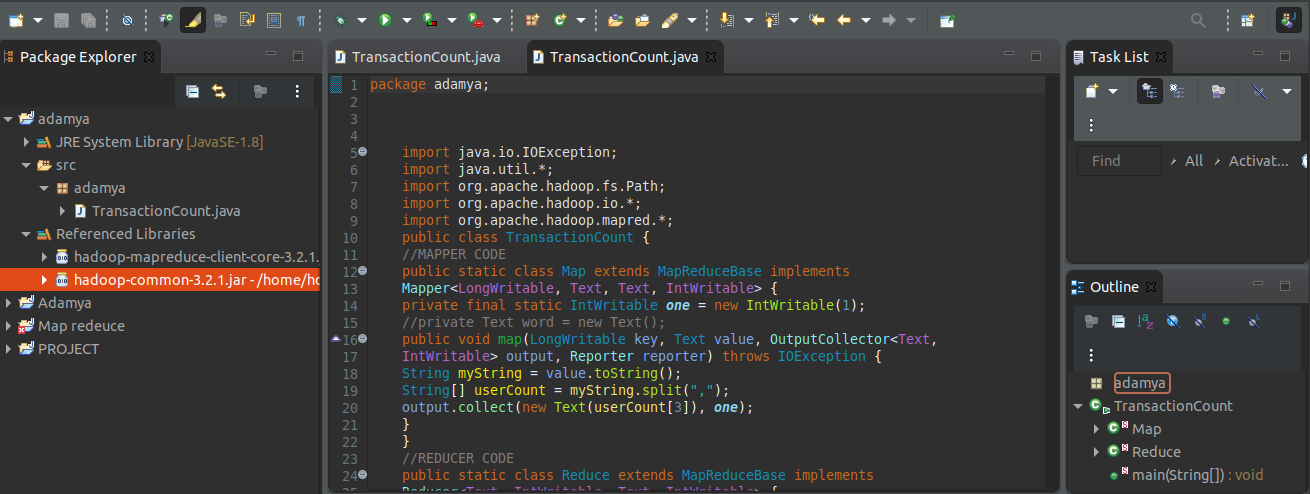
Click on -> build a path -> add external archives -> Hadoop 3.2.1 -> share

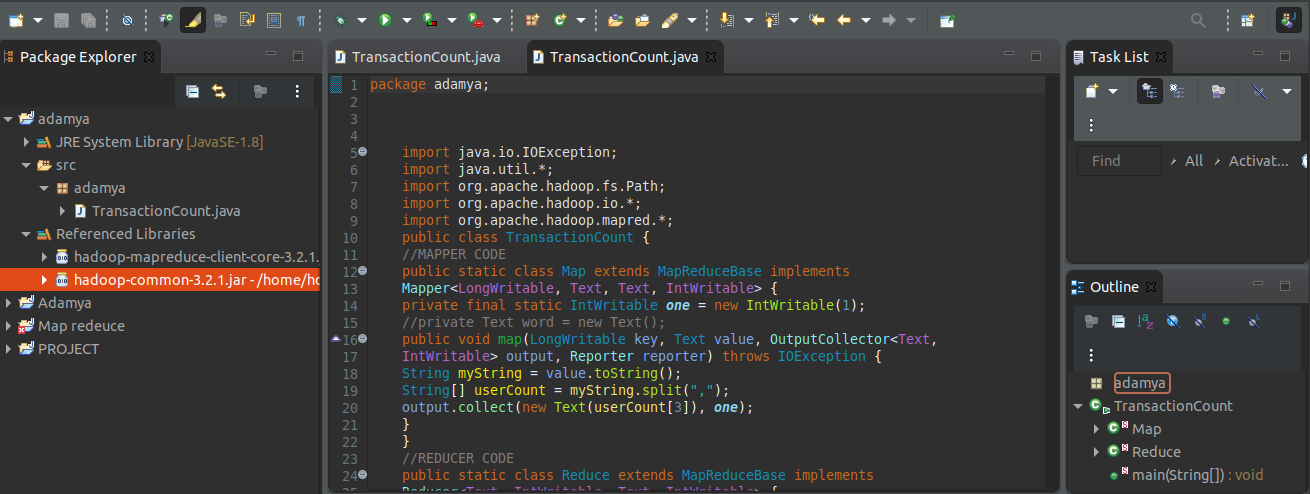
In share 1. Click on common ->open hadoop-common-3.2.1.jar

2. Click on mapreduce -> open hadoop-mapreduce-client-core-3.2.1.jar

Right click on project -> export -> java -> jar file -> next

Browse the address of the java file and save it in desktop/document/downloads and name it (adamya.jar)



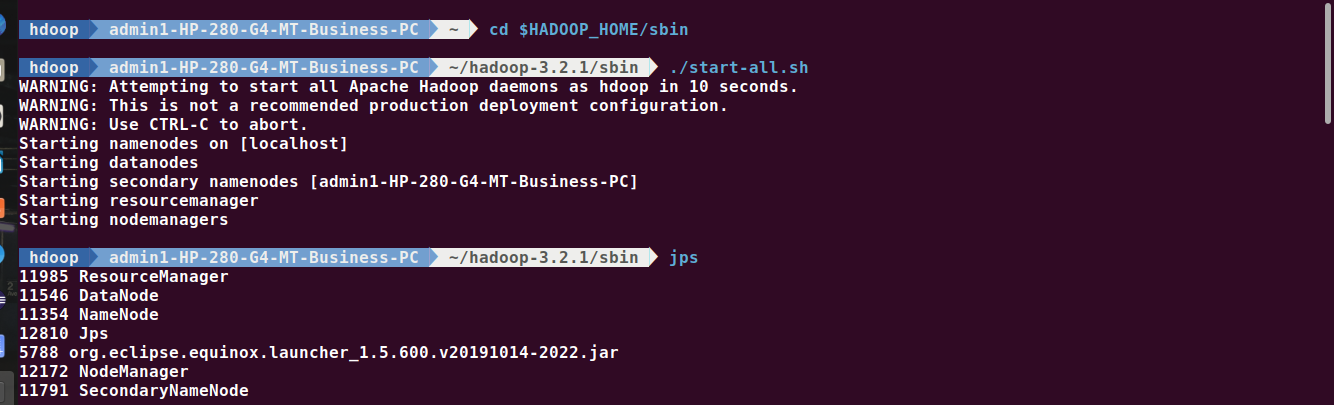


cd $HADOOP\_HOME

cd sbin

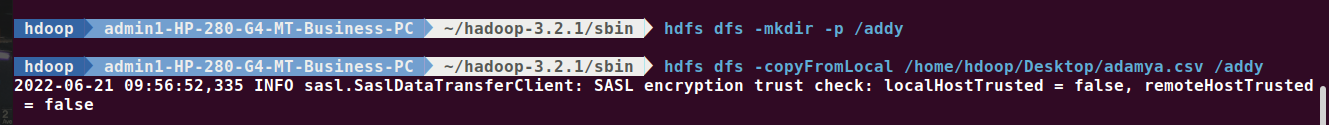
jps

Start-all.sh

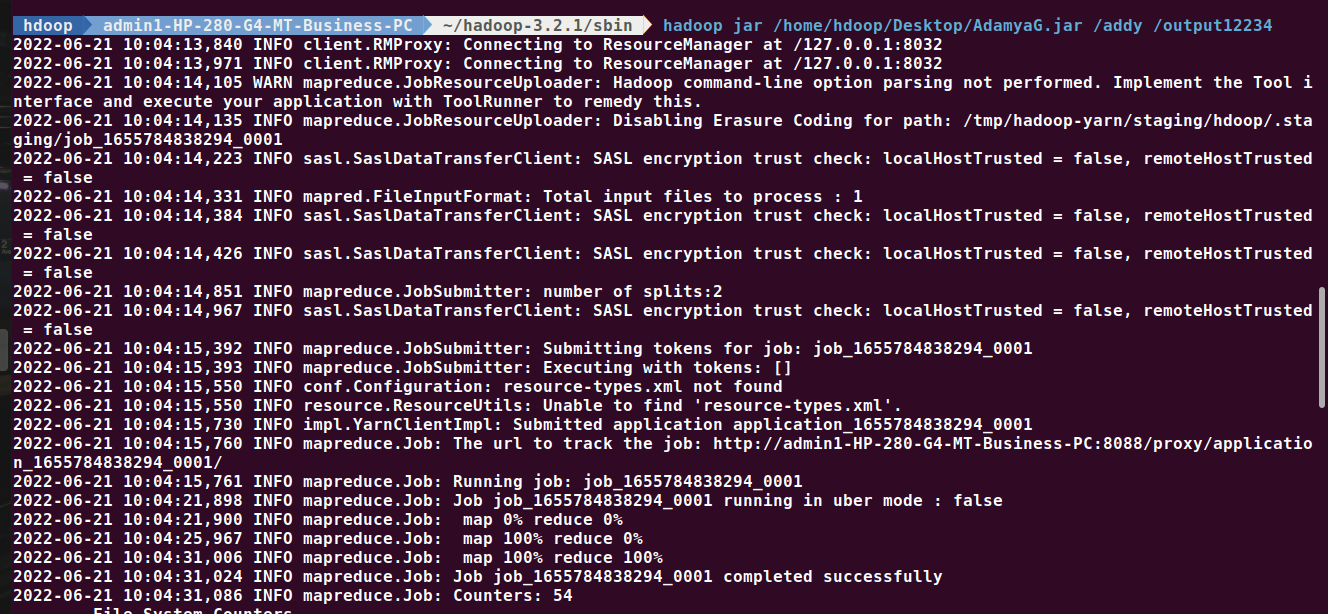


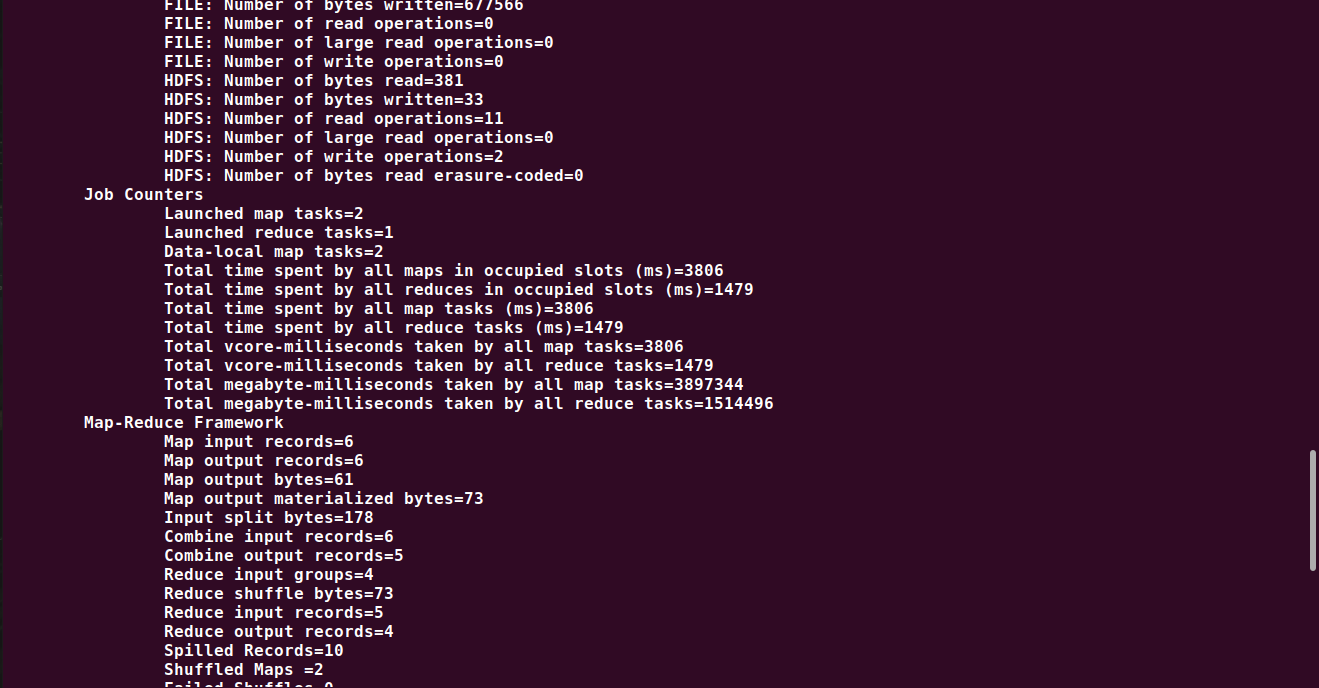
hdfs dfs -mkdir -p /addy

hdfs dfs -copyFromLocal /home/hdoop/Desktop/adamya.csv /addy

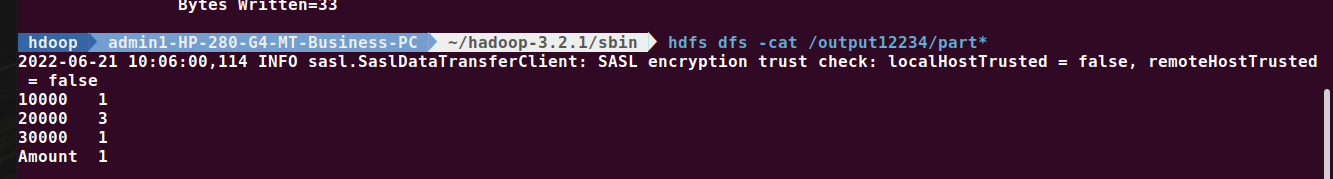


hadoop jar /home/hdoop/Desktop/AdamyaG.jar /addy /output12234





hdfs dfs -cat /output12234/part\*



Code:

package adamya;

import java.io.IOException;

import java.util.\*;

import org.apache.hadoop.fs.Path;

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

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

public class WordCount {

//MAPPER CODE

public static class Map extends MapReduceBase implements

Mapper<LongWritable, Text, Text, IntWritable> {

private final static IntWritable one = new IntWritable(1);

//private Text word = new Text();

public void map(LongWritable key, Text value, OutputCollector<Text,

IntWritable> output, Reporter reporter) throws IOException {

String myString = value.toString();

String[] userCount = myString.split(",");

output.collect(new Text(userCount[3]), one);

}

}

//REDUCER CODE

public static class Reduce extends MapReduceBase implements

Reducer<Text, IntWritable, Text, IntWritable> {

public void reduce(Text key, Iterator<IntWritable> values,

OutputCollector<Text, IntWritable> output, Reporter reporter) throws

IOException { //{little: {1,1}}

int finaluserCount = 0 ;

Text mykey = key ;

while(values.hasNext()) {

IntWritable value = values.next();

finaluserCount += value.get();

}

output.collect(mykey, new IntWritable(finaluserCount));

}

}

//DRIVER CODE

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

JobConf conf = new JobConf(WordCount.class);

conf.setJobName("wordcount");

conf.setOutputKeyClass(Text.class);

conf.setOutputValueClass(IntWritable.class);

conf.setMapperClass(Map.class);

conf.setCombinerClass(Reduce.class);

conf.setReducerClass(Reduce.class);

conf.setInputFormat(TextInputFormat.class);

conf.setOutputFormat(TextOutputFormat.class);

FileInputFormat.setInputPaths(conf, new Path(args[0]));

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

JobClient.runJob(conf);

}

}