Sample I/O:

Input:

cat > /home/cloudera/Process file.txt

Hey Cassie
Hey Anu
Hey Nate
Hey Mary
Hey Anu
Hi Nate

Output:

hdfs dfs -cat /out/Part r-000

Anu 2
Cassie 1
Hey 1
Hi 1
Maddy 1
Nate 2

Expt. No. 3 Page No. 45

Expt. Name. HADOOP: MAP REDUCE CONCEPT Date: 21-03-2022

Aim:

To write a word count Java program in hadoop to implement the map reduce concept.

Program:

```
import java.io.IOException;
import java.util.StringTokenizer;
import org.apache.hadoop.conf.Configuration;
import org.apache.hadoop.fs.Path;
import org.apache.hadoop.io.IntWritable;
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;

Public class WordCount {
    Public static class TokenizerMapper extends
        Mapper<Object, Text, Text, IntWritable> {
    Private final static IntWritable one = new IntWritable(1);
    Private Text word = new Text();
    Public void map(Object key, Text value, Context context)
            throws IOException InterruptedException {

String.Tokenizer itr = new StringTokenizer(value.toString());
while(itr.hasMoreTokens()) {
    word.set(itr.MoreToken()) {
```

```
        word.set(itr.nextToken());
        Context.write(word,one);
    }
  }
}
Public static class IntSumReduce.extends
      Reducer<Text,IntWritable,Text,IntWritable>{
  Private.IntWritable.result = new IntWritable();
Public void reduce(Text key, Iterable<IntWritable>
   values, Context Context) throws IOException InterruptedException {

  int sum=0;
  for(Int writable val: values){
        sum+=val.get();
  }
  result.set(sum);
  Context.write(key, result)
  }
}

Public static void main(String[] args) throws Exception {
   Configuration conf = new Configuration();
   Job job= job.getInstance(conf,"word.count");
   job.setjarByclass(words Count.class);
   job.set Mapper class(Tokenizer Mapper.class);
   job.set Combiner class(IntsumReducer.class);
   job.set Reducer class(IntsumReducer.class);
   job.set Output key class(Text,class);
   job.set output value class(IntWritable.class);
```

```
FileInputFormat.addInputPath(job, new path(args[0]));
FileOutputFormat.setOutputpath(job, newpath(args[1]));
System.exit(job.waitForCompletion(true)?0:1);
}
}
```

Result:

The program was executed successfully.