MapReduce (Hadoop) with Povray

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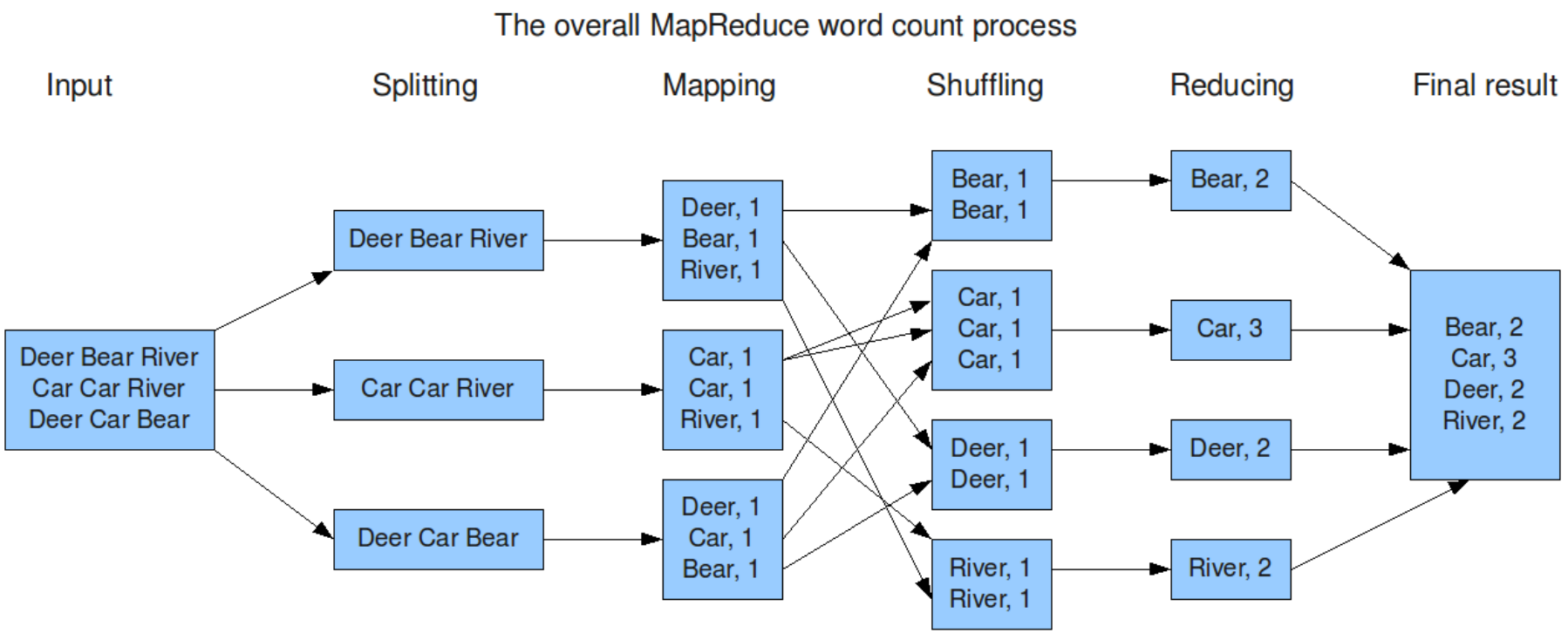
Agenda

- MapReduce & Hadoop
- Amazon Elastic MapReduce
- Idea & Implementation
- Live Demo

MapReduce & Hadoop



```
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 {

      StringTokenizer itr = new StringTokenizer(value.toString());
      while (itr.hasMoreTokens()) {
        word.set(itr.nextToken());
        context.write(word, one);
      }
    }
  }
```

```
public static class IntSumReducer 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 (IntWritable val : values) {
       sum += val.get();
     }
     result.set(sum);
     context.write(key, result);
   }
 }
```

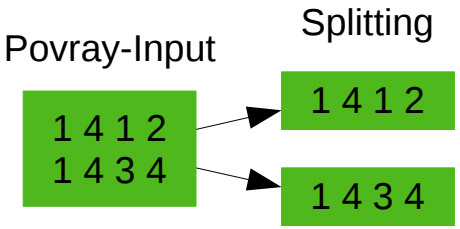
Amazon Elastic MapReduce

Idea & Implementation

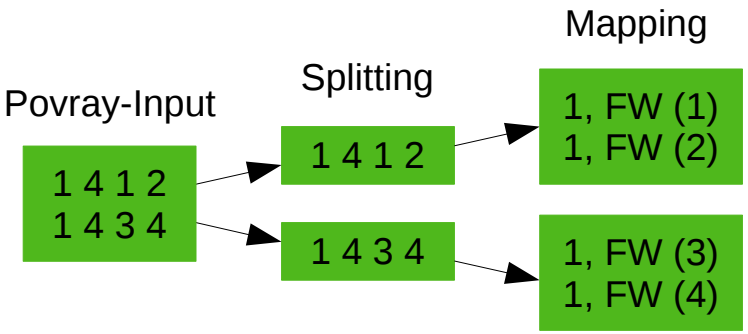
Povray-Input

```
1 4 1 2
1 4 3 4
```

Idea & Implementation

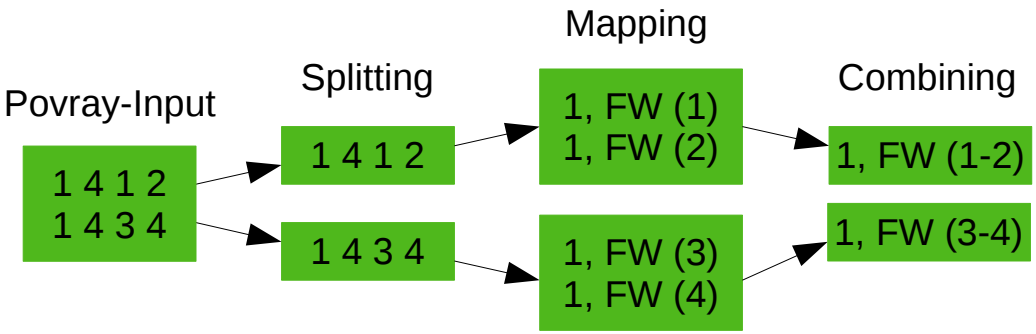


Idea & Implementation



FW = FrameWritable

Idea & Implementation



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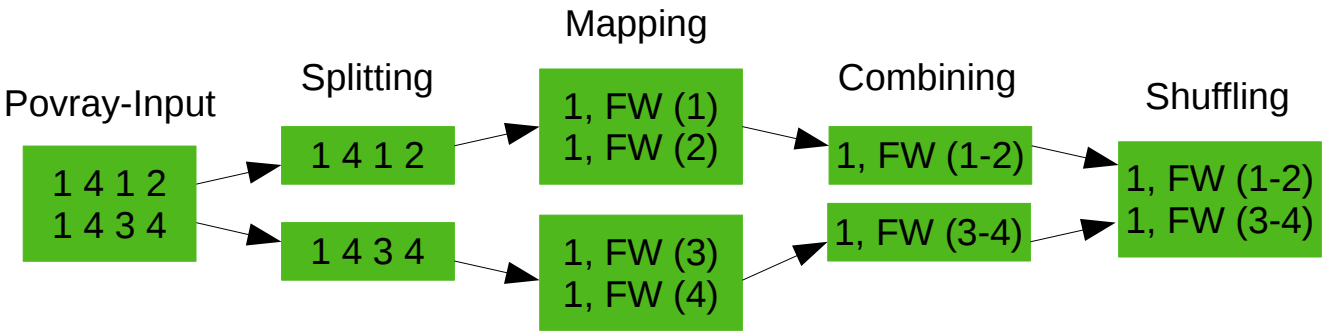
Idea & Implementation



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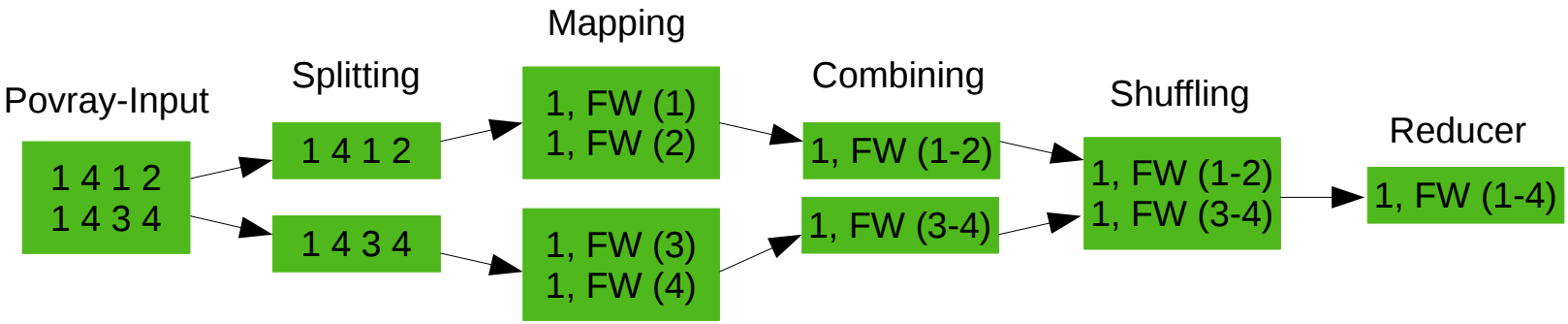
Idea & Implementation



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Live Demo