

Basic programs of Hadoop MapReduce

→ Driver Code



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```
Configuration conf = new Configuration();  
Job job = new Job(conf, "My Word Count Program");  
job.setJarByClass(WordCount.class);  
job.setMapperClass(Map.class);  
job.setReducerClass(Reduce.class);  
job.setOutputKeyClass(Text.class);  
job.setOutputValueClass(IntWritable.class);  
job.setInputFormatClass(TextOutputFormat.class);  
job.setOutputFormatClass(TextOutputFormat.class);  
Path outputPath = new Path(args[0]);  
FileInputFormat.setInputPath(job, new Path(args[0]));  
FileOutputFormat.setOutputPath(job, new Path(args[1]));
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10 seconds

public static class Map extends Mapper <Long Writable, Text, Text, IntWritable>

public void map (Long Writable Key, Text value, Context) throws
IOException, InterruptedException

{
String line = value.toString();
StringTokenizer tokenizer = new StringTokenizer(line);
while (tokenizer.hasMoreTokens())

{
value.set (tokenizer.nextToken().getBytes());
context.write (value, new IntWritable(1));

}

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10 seconds

Record Reader

- Loads data and cony



6:05 / 13:43



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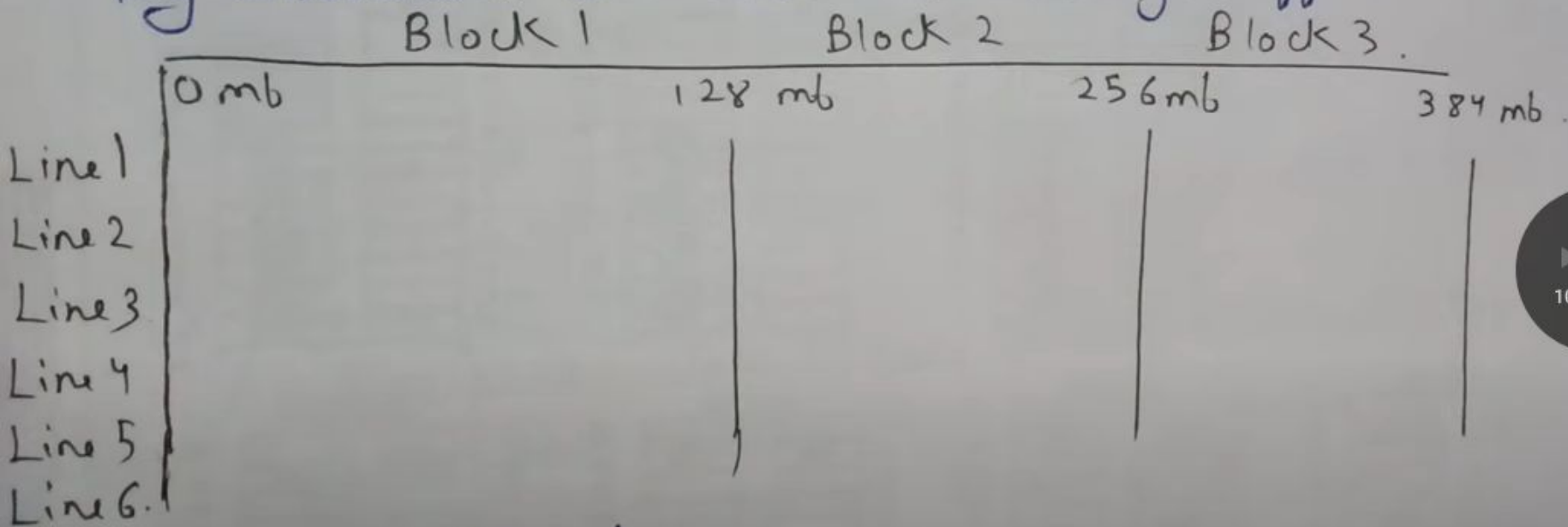
10 seconds



7:05 / 13:43



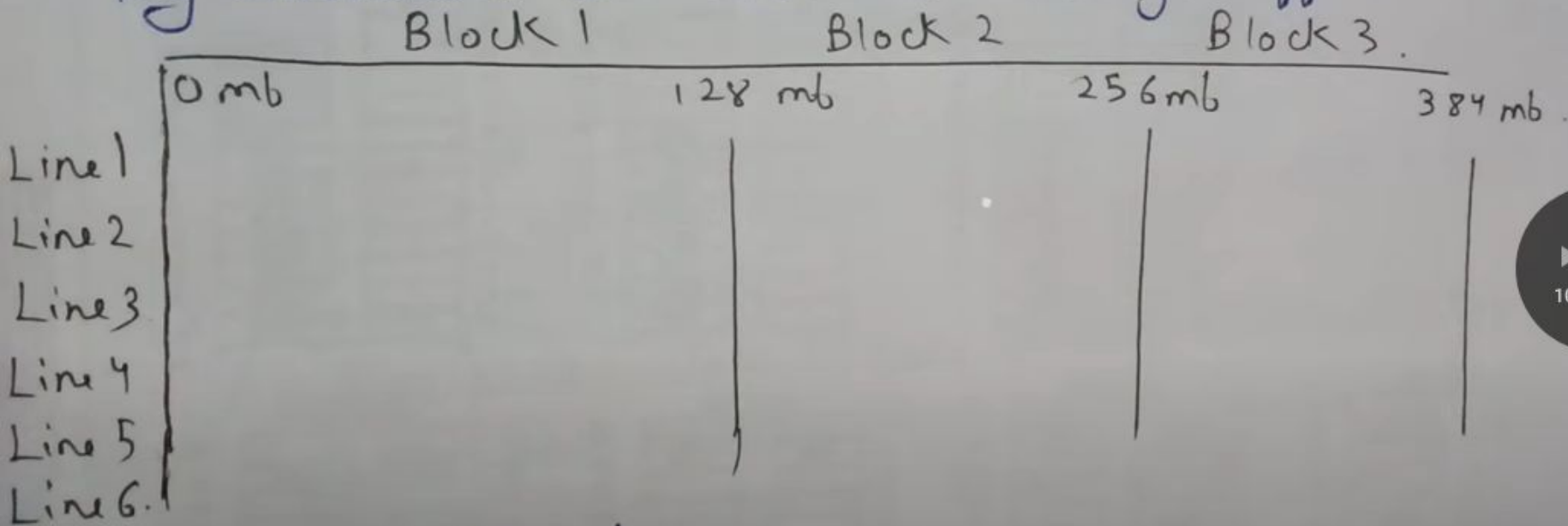
- Loads data and convert into Key Value pair.
- It's instance is defined by the Input format.
- Text input format - Default.
- Key associated with each line is its byte offset.



Data set = 300 mb.
6 lines - 50 mb.

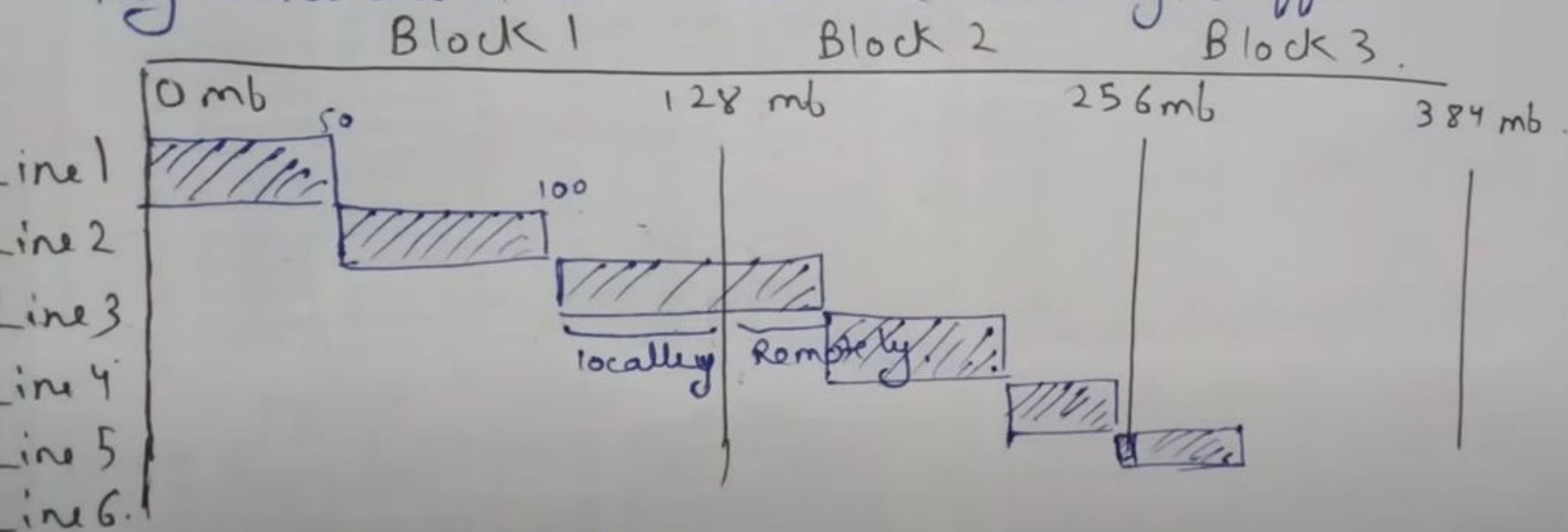


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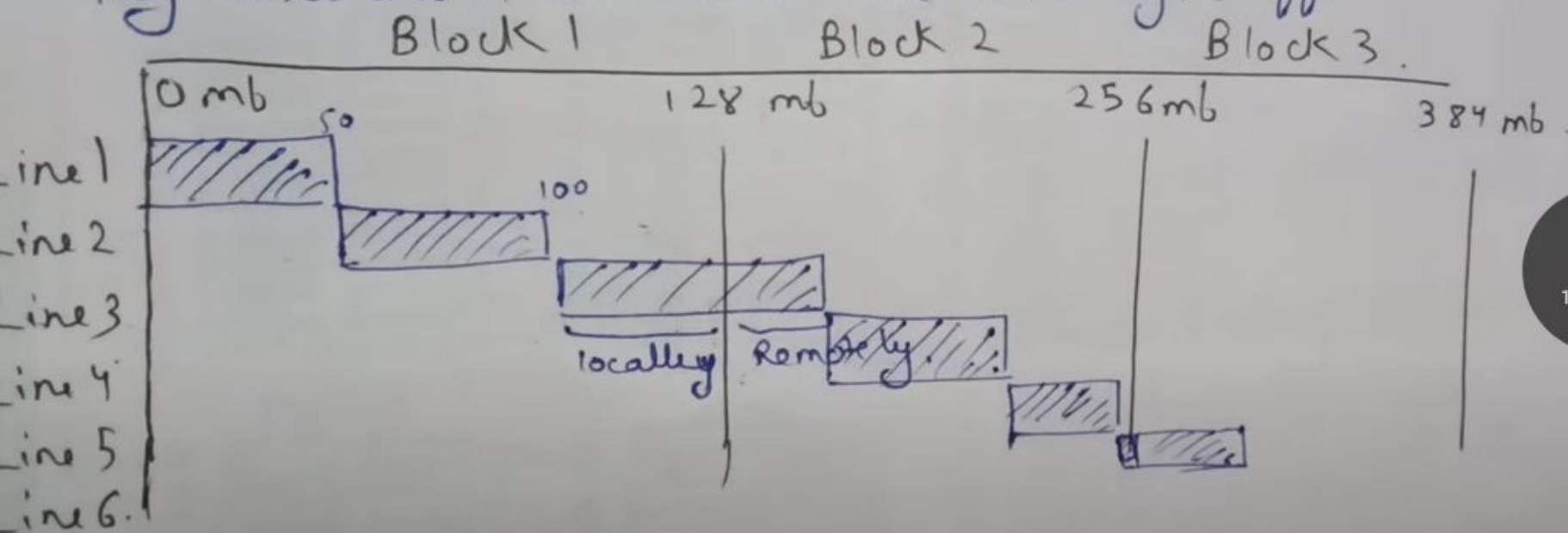
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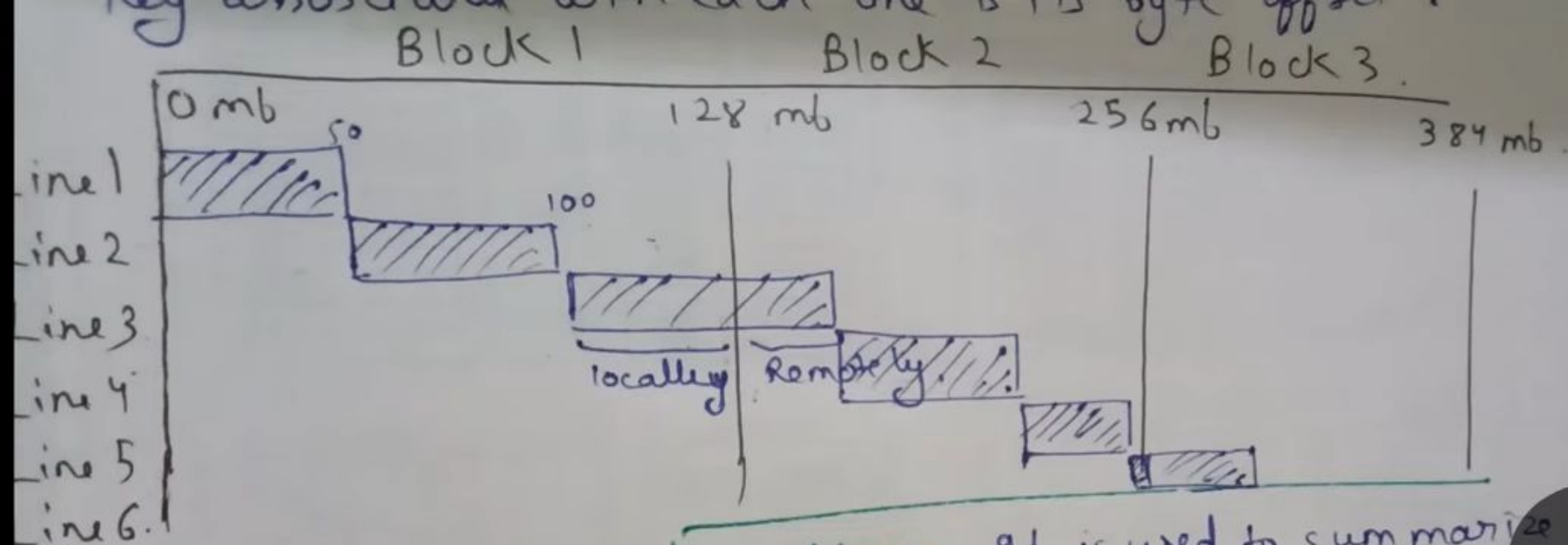
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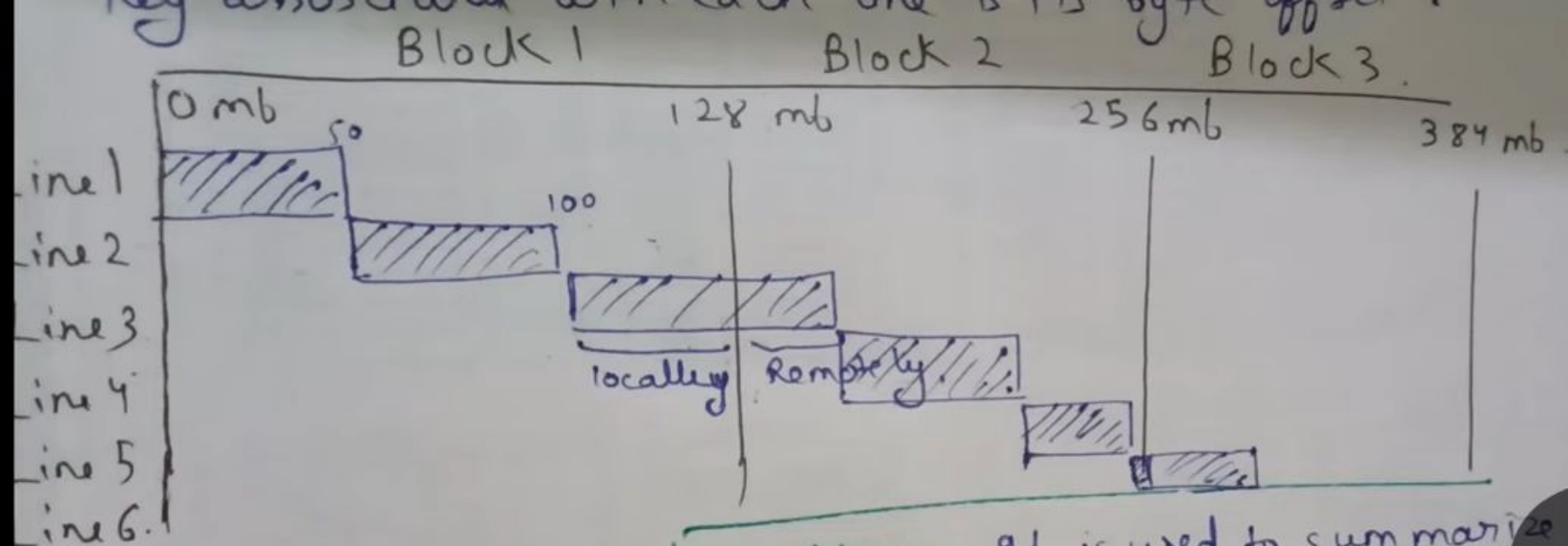
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Combiner

(semi reducer)

It is used to summarize the map output records with the same Key.

Partitioner - controls the partitioning of the Keys of the Intermediate Data.



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