

# IoT Big Data Processing

MapReduce Lab

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# Recommendation Engines

- Websites as Amazon help customers to find items that could interest them
- For example: “Customers who bought this item also bought”

Customers Who Bought This Item Also Bought





Predictive Analytics For Dummies  
› Anasse Bari  
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Paperback  
\$17.72 ✓Prime



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# “Customers who bought this item also bought”

## Customers Who Bought This Item Also Bought





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- Input
  - Set of items in transactions:  
book12, book34, cd12, cd42, dvd32  
book32, book34, dvd32
- Output
  - key-value pairs in which the key is the item and the value is the list of the items most commonly bought by customers who also bought this item

# MapReduce Session Lab

- Install Hadoop
  - `http://hadoop.apache.org/docs/current/hadoop-project-dist/hadoop-common/SingleCluster.html`
- Follow the MapReduce Tutorial
  - `http://hadoop.apache.org/docs/current/hadoop-mapreduce-client/hadoop-mapreduce-client-core/MapReduceTutorial.html`
- Write a Hadoop MapReduce application for “Customers who bought this item also bought”