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Objective

- To allow customers to make better decisions when shopping
- Increase the overall quality of shopping by increasing confidence in the products they buy

Scope

- Mobile application
- Offline usability
- User friendly
- Fast and responsive

Motivation

- Lack of product information available when shopping locally
- Misleading advertisement leading to unsatisfactory shopping
- Increased cost to retailers due to large amounts of refunds

Data Sets

Product Dataset - Amazon product co-purchasing network metadata

```
Id: 15
ASIN: 1559362022
title: Wake Up and Smell the Coffee
group: Book
salesrank: 518927
similar: 5 1559360968 1559361247 1559360828 1559361018 0743214552
categories: 3
|Books[283155]|Subjects[1000]|Literature & Fiction[17]|Drama[2159]|United States[2160]
|Books[283155]|Subjects[1000]|Arts & Photography[1]|Performing Arts[521000]|Theater[215
|Books[283155]|Subjects[1000]|Literature & Fiction[17]|Authors, A-Z[70021]|( B ) [70023]
reviews: total: 8 downloaded: 8 avg rating: 4
2002-5-13 cutomer: A2IGOA66Y6O8TQ rating: 5 votes: 3 helpful: 2
2002-6-17 cutomer: A2OIN4AUH84KNE rating: 5 votes: 2 helpful: 1
2003-1-2 cutomer: A2HN382JNT1CIU rating: 1 votes: 6 helpful: 1
2003-6-7 cutomer: A2FDJ79LDU4018 rating: 4 votes: 1 helpful: 1
2003-6-27 cutomer: A39QMV9ZKRJX05 rating: 4 votes: 1 helpful: 1
2004-2-17 cutomer: AUUVMSTQ1TXDI rating: 1 votes: 2 helpful: 0
2004-2-24 cutomer: A2C5K0QTL9UAT rating: 5 votes: 2 helpful: 2
2004-10-13 cutomer: A5XYF0Z3UH4HB rating: 5 votes: 1 helpful: 1
```

Data Sets

Review Dataset - Amazon review data

```
{
  "reviewerID": "A2SUAM1J3GNN3B",
  "asin": "0000013714",
  "reviewerName": "J. McDonald",
  "helpful": [2, 3],
  "reviewText": "I bought this for my husband who plays the piano.
He is having a wonderful time playing these old hymns. The music is
at times hard to read because we think the book was published for
singing from more than playing from. Great purchase though!",
  "overall": 5.0,
  "summary": "Heavenly Highway Hymns",
  "unixReviewTime": 1252800000,
  "reviewTime": "09 13, 2009"
}
```

Functional Requirements

Main/External functionalities

- Allow user to search for product by their asin
- Once searched, display information related to searched product
- Then, display a group of reviews of the searched product
- Then, display a group of suggested products and their information

Functional Requirements

Internal functionalities

- Searching products by their properties
- Sorting products by their properties
- Connecting products and making a graph
- Reading/Extracting useful information from the dataset
- GUI to display the application and interact with the user

Non-Functional Requirements

- Reliability
- Accuracy of Results
- Performance
- Portability
- Accessibility
- Availability



Verification and Validation

- Unit Testing
 - Testing each module individually
- Prototype Testing
 - Testing the overall application
- Interface Testing
 - Testing user interactions and visual behaviours



Challenges

➤ Graphing

- Finding similar products in a large collection of products
- Limit the depth in the connection to maintain a level of similarity to the original product

➤ Merging Data Sets

- Different datasets with different sets of information
- Find the common products and map the data correct

Demonstration

Thanks for listening
