

DATA MINING

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HISTORY

- Relational DBMS (1975)
- Decision Support System (1978)
- Data Warehouse (1988)
- Data Mining (1996)
 - K Parsaye & M Chignell (Book of Intelligent Database Tools & Applications)
 - Pieter Adriaans & Dolf Zatinge (Book of “Data Mining”)

BUSINESS INTELLIGENCE

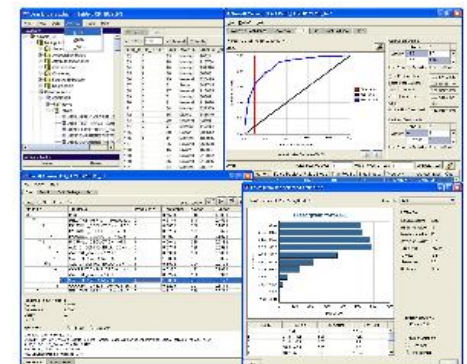
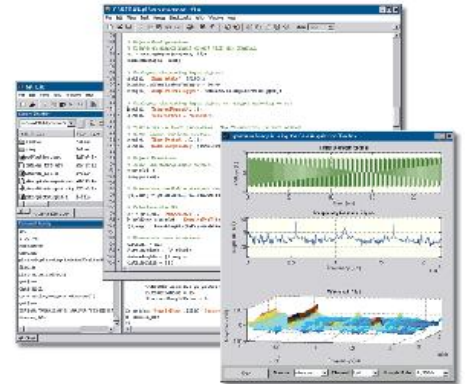
QUERY & REPORTING	OLAP	DATA MINING
Mengambil laporan data detail	Mengambil laporan data summary	Mengambil informasi yang tersembunyi dalam data
Informasi	Analisa	Prediksi dan Perkiraan
Siapa yang membeli barang tertentu dalam 3 tahun terakhir?	Berapa rata-rata pembelian barang dalam 3 tahun terakhir ?, berdasarkan wilayah?	Siapa kira-kira yang akan membeli barang tertentu dalam 3 tahun mendatang ? Dan kenapa ?

DATA MINING



- What is Data Mining?
- Model Data Mining?
- How To?
 - Algorithm
 - Artificial Intelligence
 - Statistical Method

ASSOCIATION RULE (MARKET – BASKET ANALYSIS)



REAL APPLICATION ASSOCIATION RULE

This screenshot shows the top portion of an Amazon product page. The browser's address bar displays the URL: `www.amazon.com/Human-All-Too-Spirits-Revised/dp/0803283687/ref=sr_1_2?s=books&ie=UTF8&qid=1362281566&sr=1-2&keywords=human`. The Amazon logo and navigation links are visible at the top. The product title is "Human, All Too Human: A Book for Free Spirits, Revised Edition [Paperback]" by Friedrich Nietzsche (Author), Gordon Faber (Translator, Introduction), Stephan Lehmann (Translator), and Arthur S. Danto (Introduction). The price is listed as \$11.53, with a "FREE Super Saver Shipping" offer on orders over \$25. A "FREE TWO-DAY SHIPPING FOR COLLEGE STUDENTS" banner is prominently displayed. A table of formats shows the paperback price at \$11.53, with new and used options available from \$7.00 to \$11.75. On the right, a "Buy New" box shows a quantity of 1 and a price of \$11.53, with an "Add to Cart" button. Below it, a "Buy Used" box shows a price of \$5.77. A "More Buying Choices" section indicates 110 used copies are available from \$1.75.

Human, All Too Human: A Book for Free Spirits, Revised Edition [Paperback]
Friedrich Nietzsche (Author), Gordon Faber (Translator, Introduction), Stephan Lehmann (Translator), Arthur S. Danto (Introduction)
List Price: \$16.95
Price: **\$11.53** & FREE Super Saver Shipping on orders over \$25. Details
You Save: \$5.42 (32%)
In Stock.
Ships from and sold by Amazon.com. Gift-wrap available.
Want it Tuesday, March 5? Order within 41 hrs 31 mins, and choose One-Day Shipping at checkout.
Details
38 new from \$7.00 21 used from \$1.75 1 collectible from \$7.00
FREE TWO-DAY SHIPPING FOR COLLEGE STUDENTS
Learn more
Formats Amazon price New from Used from
Hardcover -- \$266.95 \$29.44
Paperback **\$11.53** \$7.00 \$11.75

Buy New **\$11.53**
Quantity: 1
Yes, I want FREE Two-Day Shipping with Amazon Prime
Add to Cart
or
Sign in to turn on 1-Click ordering
Buy Used **\$5.77**
Add to Wish List
More Buying Choices
110 used & new from \$1.75
Have one to sell? (Sell on Amazon)
Share

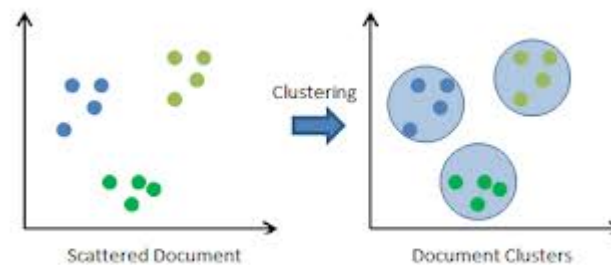
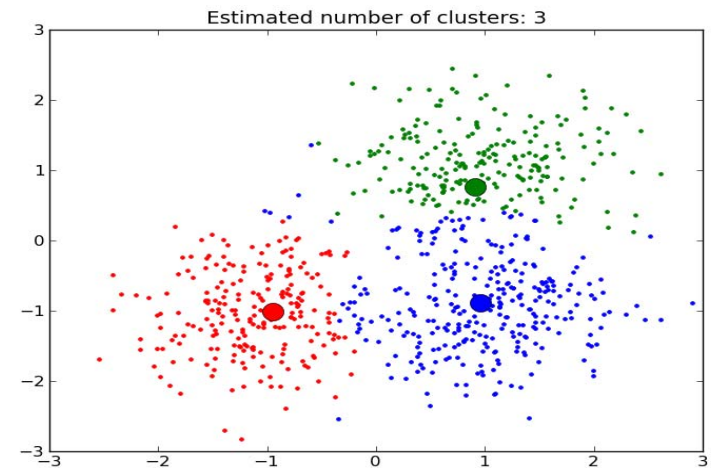
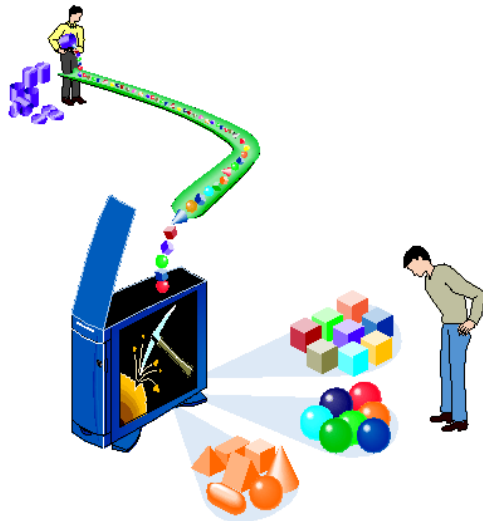
This screenshot shows the lower portion of the Amazon product page. The product title and price (\$11.53) are repeated at the top. Below the title, a "Customers Who Bought This Item Also Bought" section displays five recommended books. Each book has a "LOOK INSIDE!" button and a star rating. The books are: "The Gay Science: With a Prelude in Rhymes and an Appendix of Songs" by Friedrich Nietzsche (45 stars, \$10.40), "Daybreak: Thoughts on the Prejudices of Morality ..." by Friedrich Nietzsche (13 stars, \$20.55), "Beyond Good and Evil Friedrich Nietzsche" (24 stars, \$7.13), "Michel de Montaigne - The Complete Essays ..." by Michel de Montaigne (32 stars, \$16.50), and "The Portable Walt Whitman (Penguin Classics)" by Walt Whitman (4 stars, \$15.00). A sixth book, "Basic Writings of Nietzsche (Modern ...)" by Friedrich Nietzsche (50 stars, \$12.24), is partially visible. Below the recommendations, an "Editorial Reviews" section features a review from the New York Times Book Review and a quote from Choice magazine. The page number "Page 1 of 17" is visible in the top right corner.

Human, All Too Human: A Book for Free Spirits, Revised Edition [Paperback]
\$11.53 In Stock. Eligible for FREE Super Saver Shipping.
Add to Cart
This Item: Human, All Too Human: A Book for Free Spirits, Revised Edition by Fredrich Nietzsche Paperback **\$11.53**
The Gay Science: With a Prelude in Rhymes and an Appendix of Songs by Friedrich Nietzsche Mass Market Paperback **\$10.40**

Customers Who Bought This Item Also Bought
Page 1 of 17
LOOK INSIDE!
The Gay Science: With a Prelude in Rhymes and an Appendix of Songs
Friedrich Nietzsche
★★★★★ (45)
Mass Market Paperback
\$10.40
LOOK INSIDE!
Daybreak: Thoughts on the Prejudices of Morality ...
Friedrich Nietzsche
★★★★★ (13)
Paperback
\$20.55
LOOK INSIDE!
Beyond Good and Evil Friedrich Nietzsche
★★★★★ (24)
Paperback
\$7.13
LOOK INSIDE!
Michel de Montaigne - The Complete Essays ...
Michel de Montaigne
★★★★★ (32)
Paperback
\$16.50
LOOK INSIDE!
The Portable Walt Whitman (Penguin Classics)
Walt Whitman
★★★★★ (4)
Paperback
\$15.00
LOOK INSIDE!
Basic Writings of Nietzsche (Modern ...)
Friedrich Nietzsche
★★★★★ (50)
Paperback
\$12.24

Editorial Reviews
Review
"Offers dazzling observations of human psychology, social interaction, esthetics, and religion. The book is one of the best examples of Nietzsche's ability to unmask the essence of social reality and expose the origins of our illustrations."--*New York Times Book Review* (New York Times Book Review)
"An excellent [translation]—accurate, lively, and in places even elegant. Here his style as an epigrammist comes to full bloom. This book is not just for Nietzsche students and buffs; perceptive and intelligent readers of all sorts can relate to his unencumbered and oft acerbic analysis."--*Choice* (Choice)
--This text refers to an out of print or unavailable edition of this title.
Language Notes

CLUSTERING



CLUSTERING



Human

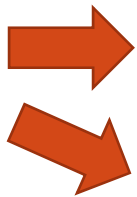


Animal

CLASSIFICATION



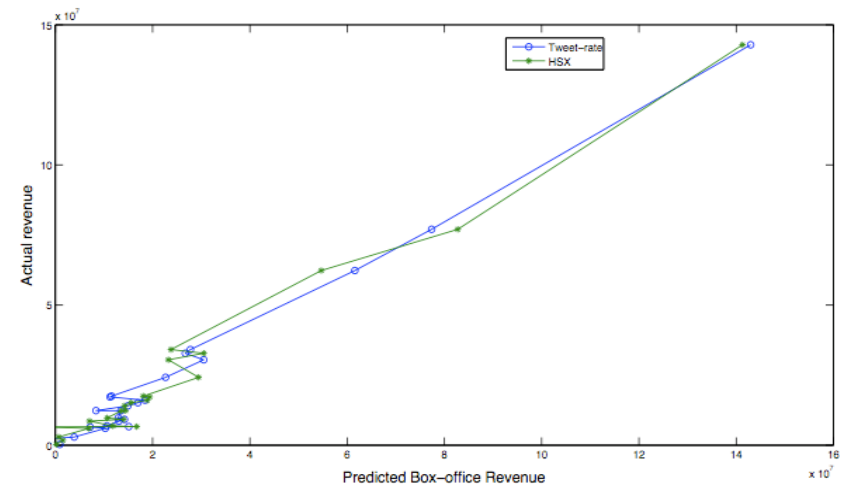
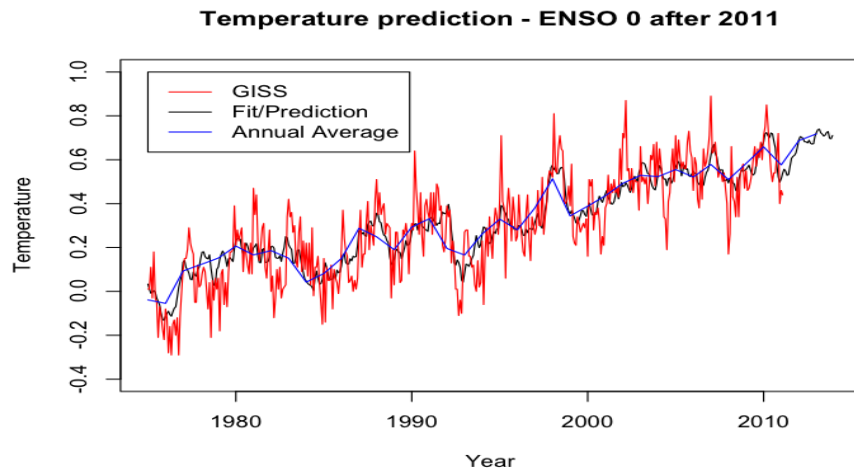
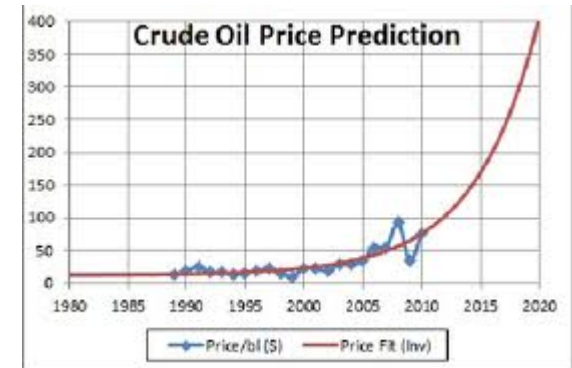
New Data/Image



Human ?

Animal ?

PREDICTION



SUMMARY

- Data Mining Technique :

- Association
- Clustering
- Classification
- Prediction

Discovering Knowledge in
Data : An Introduction to Data
Mining, Daniel T Larose, 2005



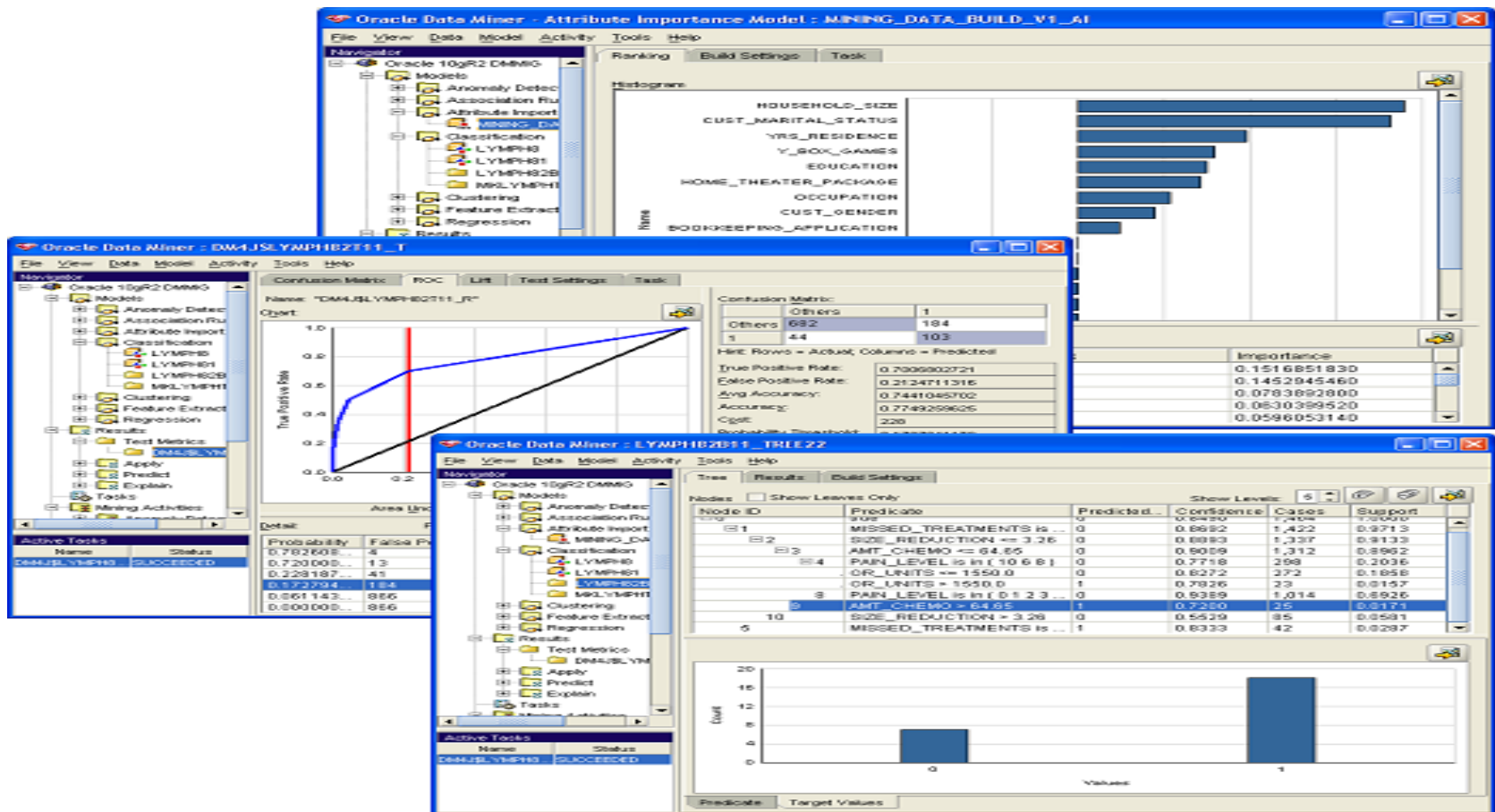
- Algorithm :

- Association Rules
- K-Means
- Kohonen Network (SOM)
- Decision Tree
- Naive Bayes
- Neural Network
- K-Nearest Neighbors
- Similiarity (Simple Matching, Jackards, Hamming, Cossine)

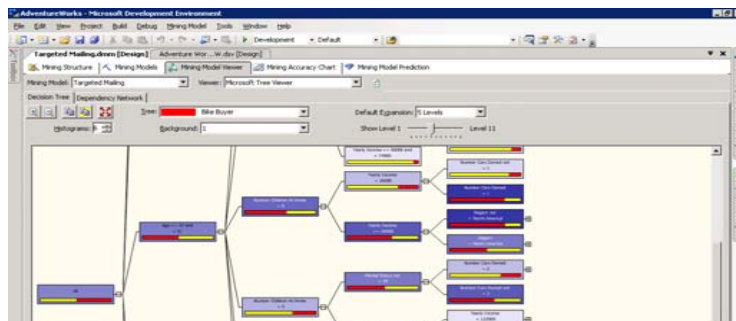
Download bahan ajar di :

http://ericks_rs.staff.gunadarma.ac.id/

ORACLE DATA MINER (ODM)



SQL SERVER DATA MINER



This screenshot shows a table of data for a Targeted Mailing model. The table has columns for 'Variables', 'Values', 'From Cluster 1', and 'From Cluster 2'. The data is organized into rows, with some rows highlighted in blue.

Variables	Values	From Cluster 1	From Cluster 2
Region	North America		
Region	Europe		
Number Cars Owned	0		
Age	23.0 - 31.0		
Age	31.0 - 39.0		
Number Cars Owned	2		
Commute Distance	0-1 Miles		
Total Children	0		
High School Education	High School		
Commute Distance	5-10 Miles		
Total Children	1		

