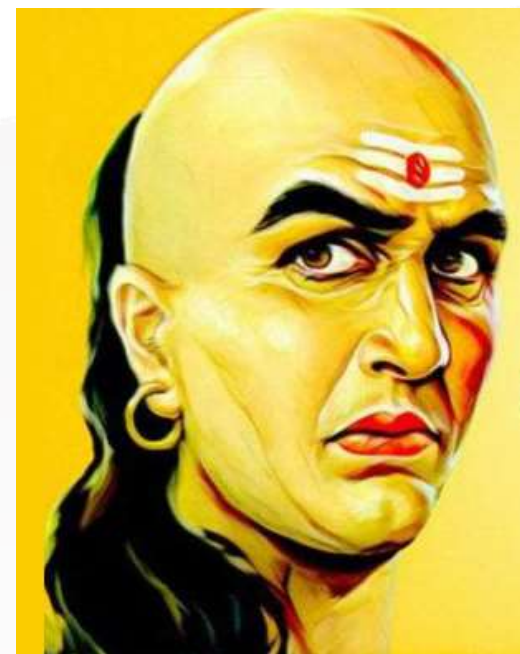




Identify the topic ?





SNS COLLEGE OF TECHNOLOGY

(An Autonomous Institution)

Re-accredited by NAAC with A+ grade, Accredited by NBA(CSE, IT, ECE, EEE & Mechanical)
Approved by AICTE, New Delhi, Recognized by UGC, Affiliated to Anna University, Chennai



Department of MCA

16CAT702- BIG DATA ANALYTICS

II MCA / I Semester

UNIT I - Introduction to Big data

TOPIC – 3 : Intelligent Data analysis



Problem



Nelson

Sales representative of
coke products

He has to verify the stock of the coke products in departmental store in the city and prepare purchase order /performance report to head office



Problem



Knowledge is...

Distillation of information that has been collected, classified, organized, integrated, abstracted and value-added.

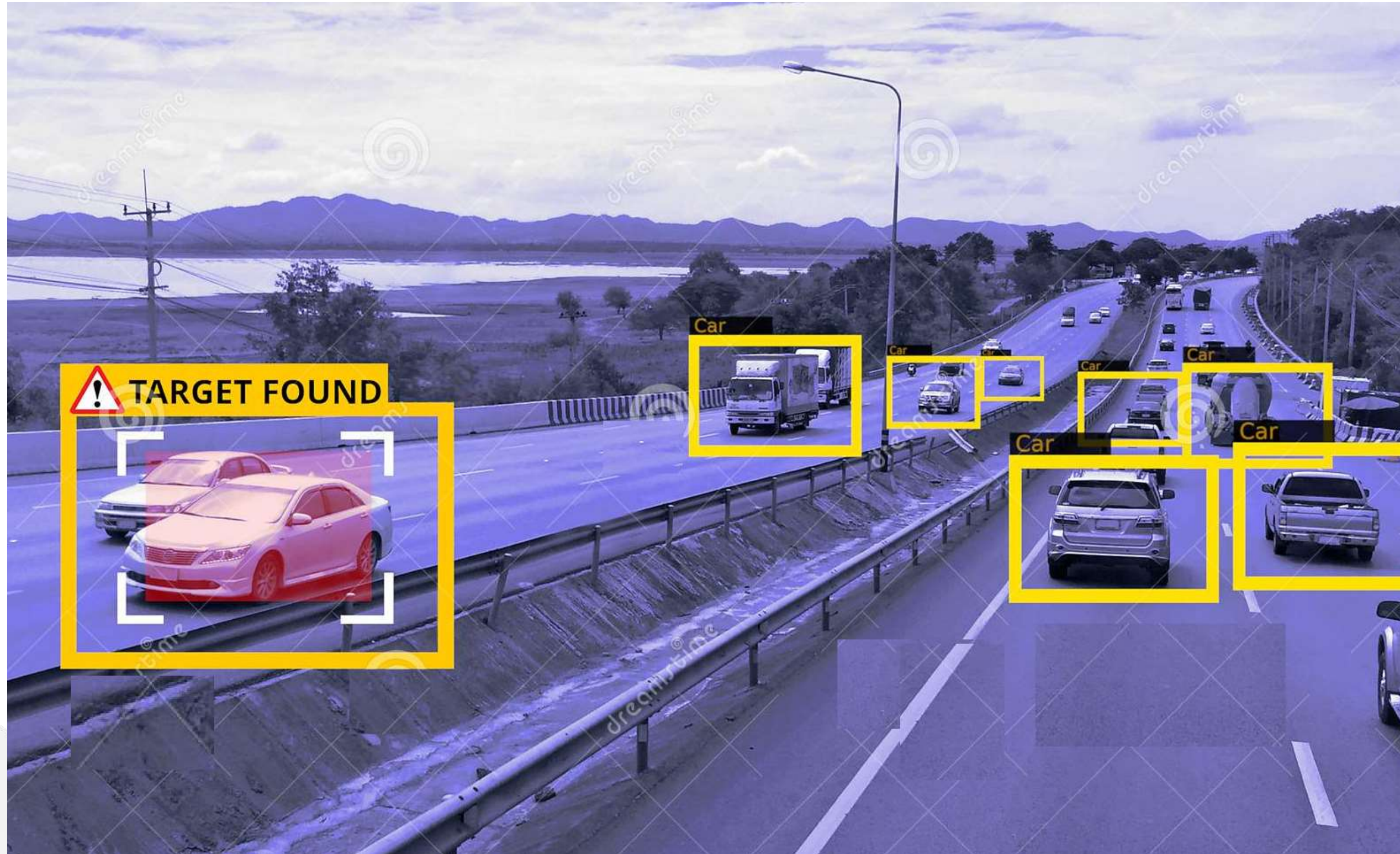


Learn Knowledge





Learn Knowledge





Hidden Knowledge





Intelligent Data Analysis (IDA)

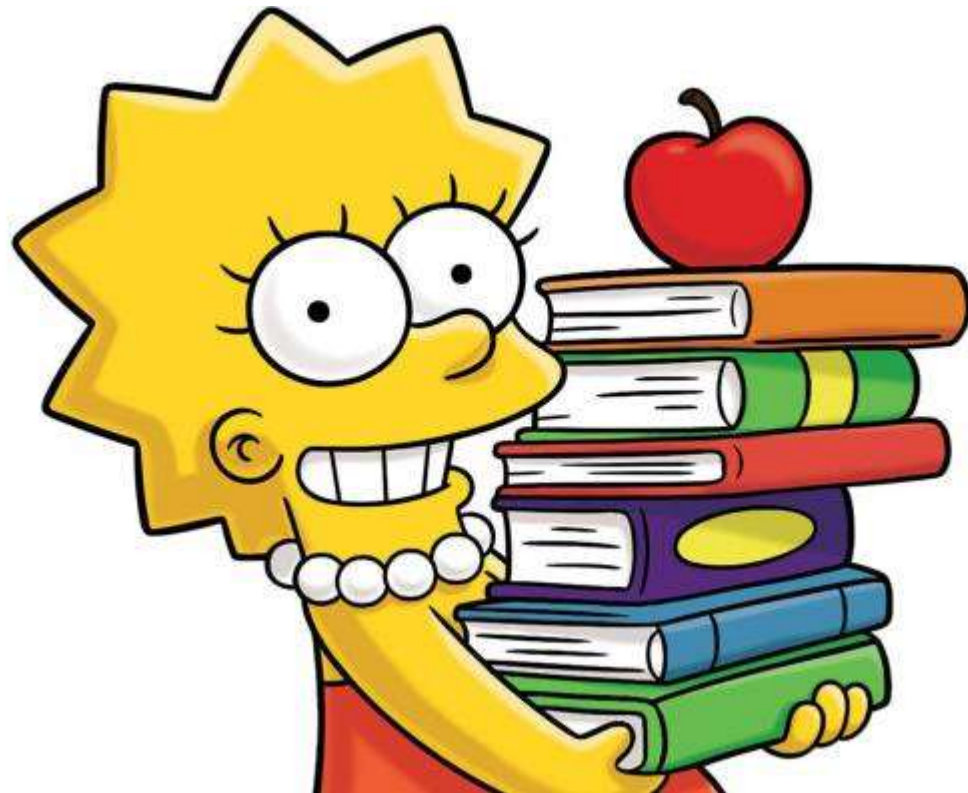
- ❑ Interdisciplinary study for effective analysis of data
- ❑ Extract
 - useful information /
 - knowledge /
 - interesting pattern

from large quantities of online data /database





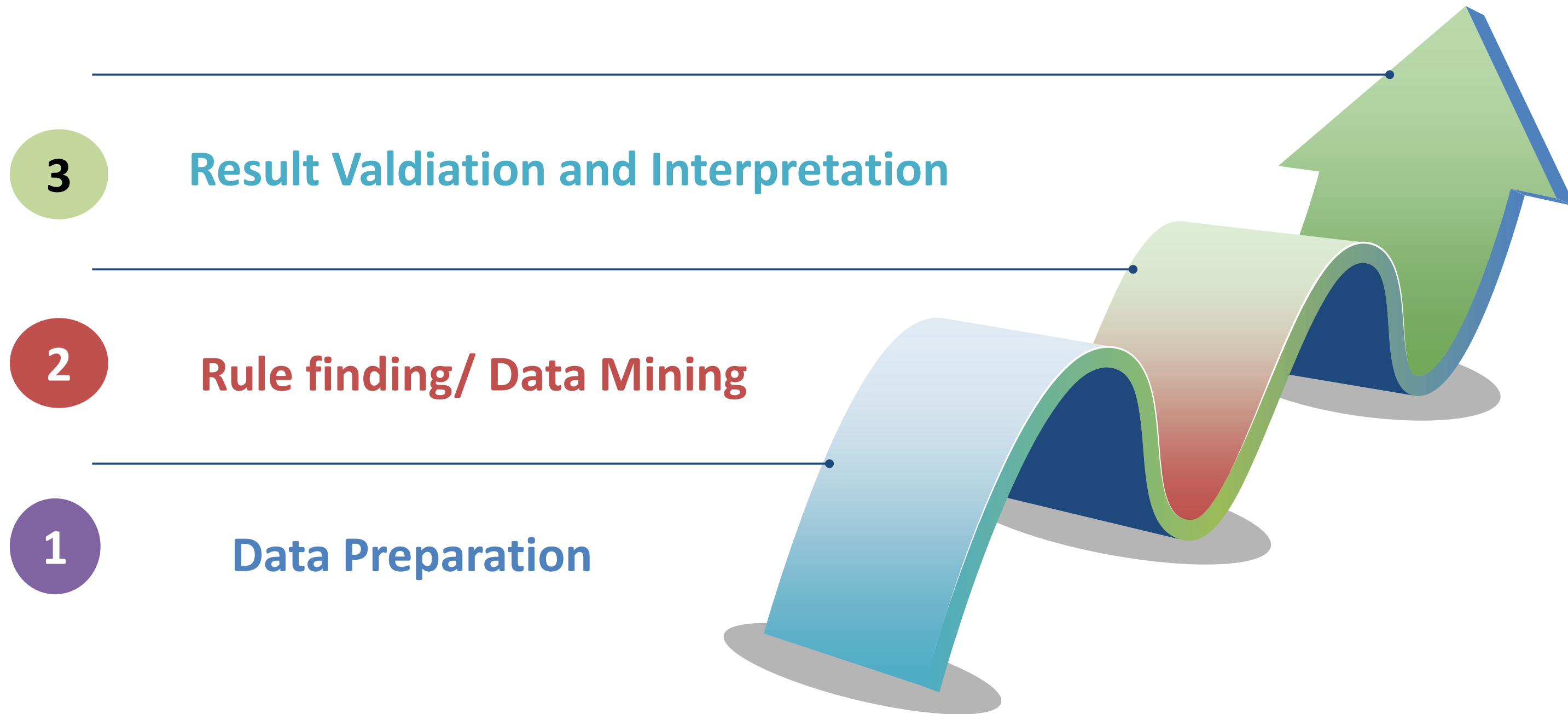
Intelligent Data Analysis (IDA)



- ❑ IDA use of
 - statistical,
 - pattern recognition,
 - machine learning,
 - **data** abstraction,
 - visualization tools for **analysis** of **data** and discovery of mechanism that created data



IDA Process





(IDA) includes...

- Data preprocessing
- Data Visualization
- Data Engineering
- Database mining
- Machine learning
- Neural networks
- Use of domain knowledge in analysis
- Statistical pattern recognition

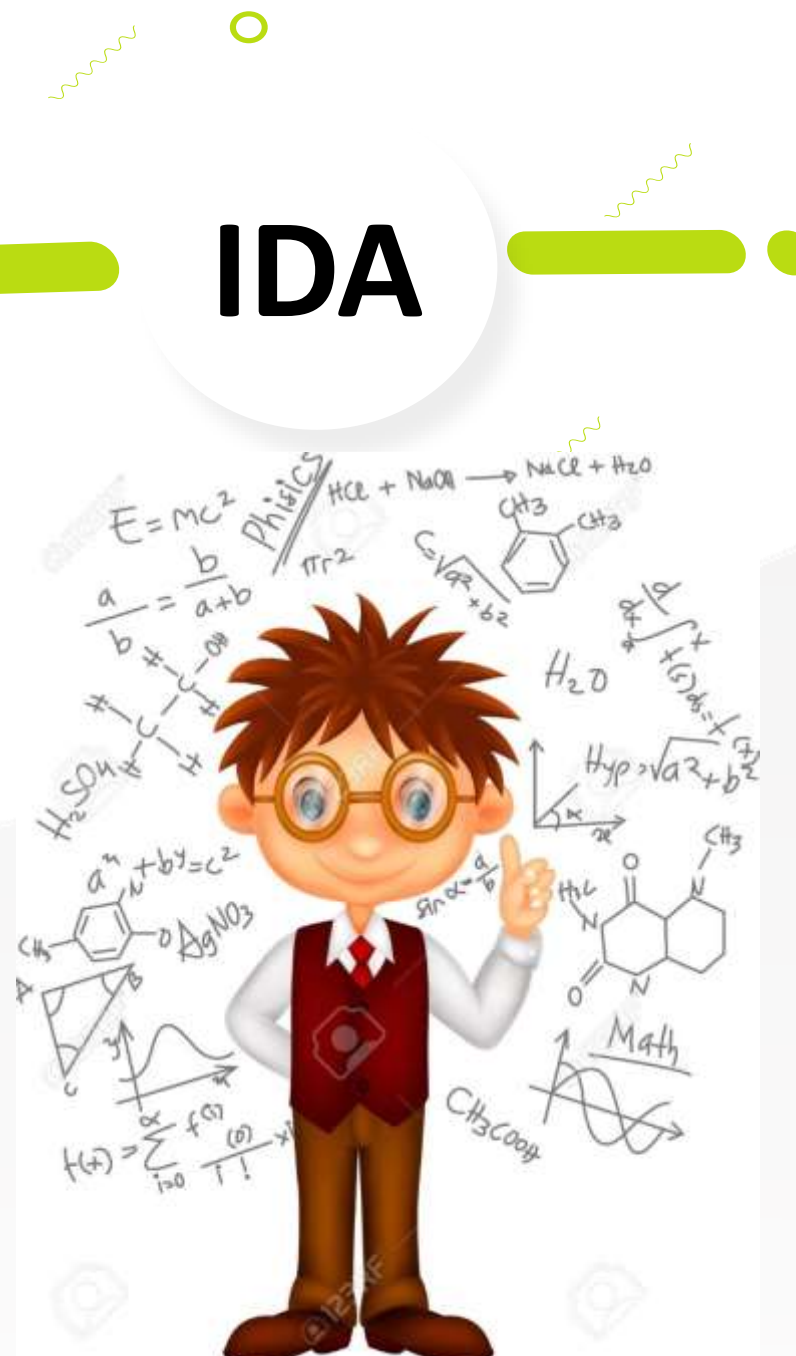


Disciplines (IDA)

Statistics

- Relationship between variable in the data
- Statistics in model selection
- Statistics in model presentation
- Statistics in model prediction

IDA



Machine Learning

- learn from data without external code
- About predictions
- Supervised and unsupervised learning

Both share the same objective: **Learning from data**



Data Mining

Extraction of interesting information/pattern from data in large database



Data warehouse

Integrates data from multiple sources

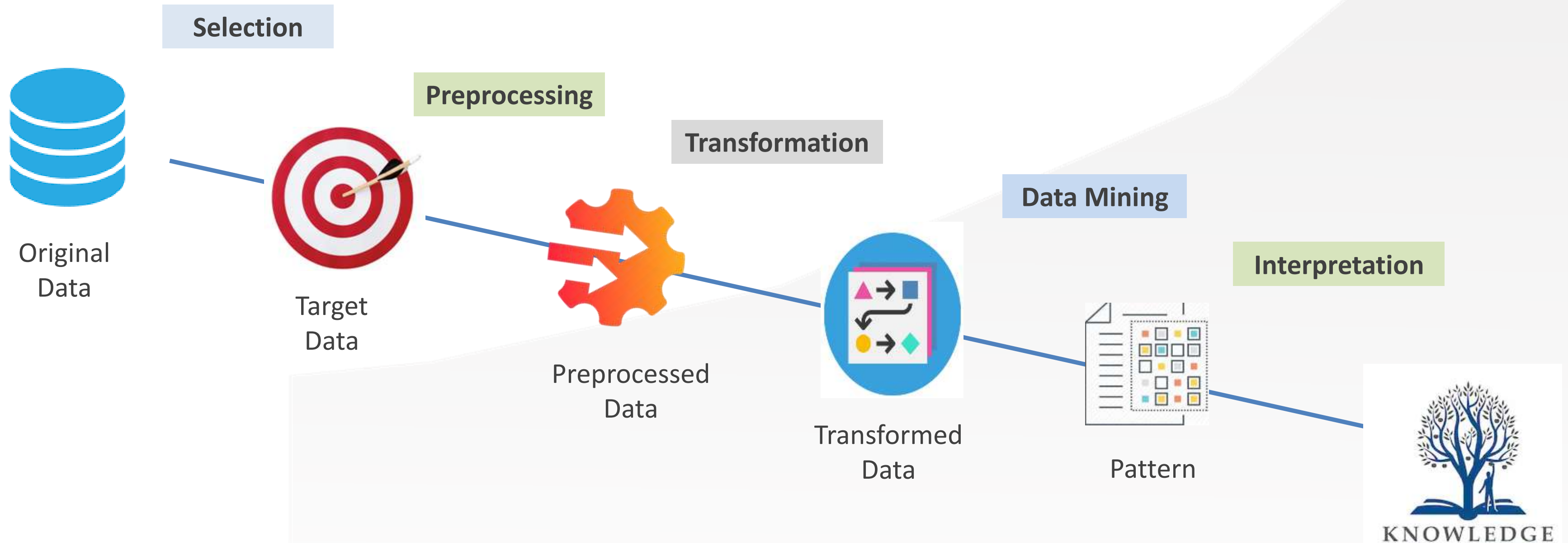


Knowledge Discovery Process

Process of finding and interpreting patterns from data



Knowledge Discovery Database (KDD Process)





Assessment

Apply intelligence and give solution ?





References



<https://link.springer.com/content/pdf/bfm%253A978-3-540-48625-1%252F1.pdf>

<https://www.dagstuhl.de/Reports/00/00331.pdf>

<http://www.cs.wm.edu/~kemper/cs626/slides/gida4.pdf>

<https://content.iospress.com/download/intelligent-data-analysis/ida200002?id=intelligent-data-analysis%2Fida200002>



References



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Solution to Slide 3



- Uses image-based technology to take pictures of stores shelves with their mobile devices
- These images were sent to the Cloud service and analyzed
- Returning actionable reports within minutes to sales reps and providing more detailed online assessments to management

