

# KDD-Knowledge Discovery in Databases

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**Abstract-** Data Mining process attempts to discover rules and patterns from data. It deals with Knowledge discovery in database that focus upon the process discovering useful knowledge from data. It is a computational process of finding patterns in large data sets and involves the evaluation and interpretation of methods as at interaction of artificial intelligence, statistics, machine learning, soft computing, High performance computing , database. In this research we've highlighted Data Mining: Introduction, KDD process, An Outline of Steps of KDD Process, The Goals of Data Mining. The unifying goal of KDD process is to extract information from data and convert it into an understandable structure for future use. As this promising technology demands our attention for improved future as data mining technology can generate new business opportunities for monitoring data used to make processes more efficient, predictable.

**Index Terms-** Knowledge discovery in databases - KDD

## I. INTRODUCTION

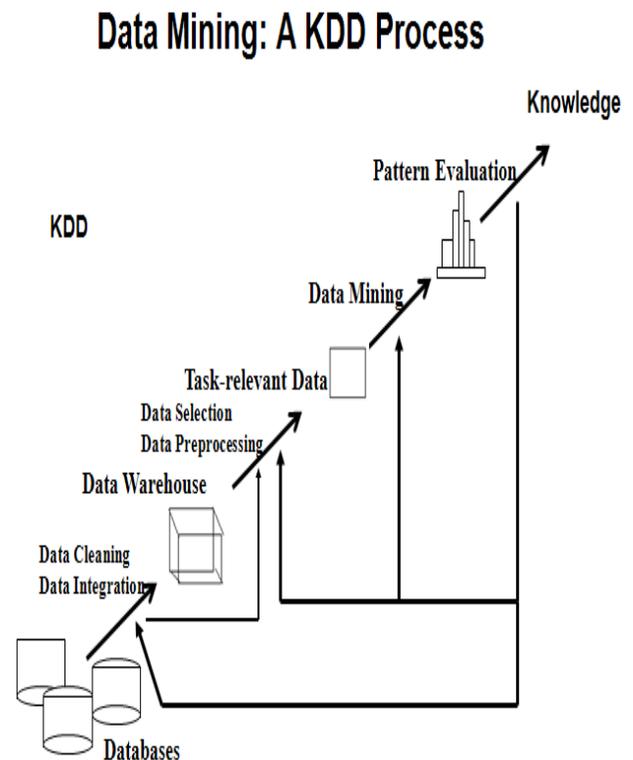
Data Mining is an interdisciplinary subject. It aims in searching or mining for knowledge i.e; interesting patterns in data. The main tasks of Data Mining are prediction and description. Data Mining is sometimes referred to as KDD i.e; Knowledge discovery in databases. KDD is the non-trivial extraction of novel, useful knowledge that can improve processes. Sophisticated data search capability that uses algorithms to discover useful patterns and correlations in data.

## II. KDD PROCESS AND ITS STEPS

KDD involves the selection, transformation, Data-mining, evaluation and representation of the patterns. Steps of a KDD Process <sup>[1]</sup>

- Data cleaning :  
It is used to remove noise and inconsistent data
- Data integration :  
It involves multiple data sources may be combined
- Data selection :  
It provides data relevant to the analysis task are retrieved from the database

- Data transformation :  
It includes data that are transformed or consolidated into forms appropriate for mining by performing aggregation operations
- Data mining :  
It is an essential process includes intelligent methods are applied in order to extract data patterns
- Pattern evaluation :  
It is used to identify the truly interesting patterns representing knowledge based on some interesting measures
- Knowledge presentation :  
It helps in visualization and knowledge representation techniques are used to present the mined knowledge to the user



### III. THE GOALS OF DATA MINING

The primary goals of Data Mining are:

- Prediction: It involves some fields in the database to predict or foresee the possible future situation
- Description: It focuses on analyzing human interpretable patterns describing the data. Descriptive mining tasks characterize the general properties of the data in the database.
- Some data mining tasks are:
  - Classification
  - Clustering
  - Association Rule Discovery
  - Sequential Pattern Discovery
  - Regression
  - Deviation Detection
- The Knowledge that data mining provides can lead to an improvement in the quality

and dependability of business decision making that improves efficiency.

### IV. CONCLUSION

The fundamental concept of Data Mining leads us to improved future in a way that data mining technology can generate new business opportunities monitoring data used to make processes more efficient, predictable. The unifying goal of KDD process is to extract information from data and convert it into an understandable structure for future use.

### V. ACKNOWLEDGMENT

The authoress sincerely finds it her duty to acknowledge her parents for supporting her in every single task performed by her while doing this piece of work. It was only due to their guidance that completion of this work could be accomplished on time with efficiency and in a systematic order.

### REFERENCES

[1] "Data Mining Concepts and Techniques" , Third Edition, by Jiawei Han , Micheline Kamber , Jian Pie