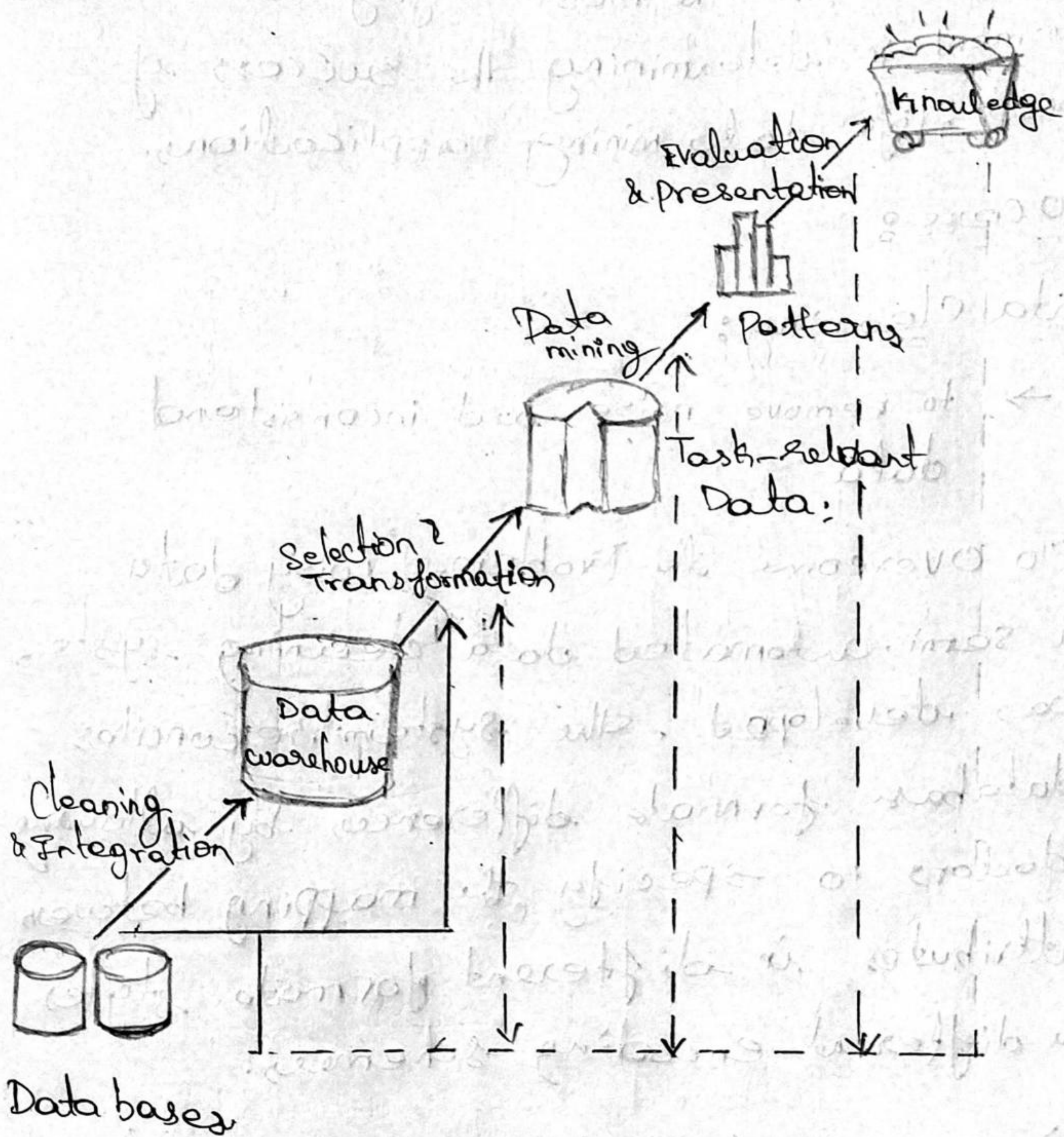


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DATA MINING

Diagram of KDD



Example: Medical Application: Diabetic Screening

Pre-Processing and Post-Processing steps can often be the most significant & critical element in determining the success of real-life data-mining applications.

Process:

① Data Cleaning:

→ to remove noise and inconsistent data

→ To overcome the problem of noisy data a semi-automated data cleaning system was developed. The system reconciles database format differences by allowing doctors to specify the mapping between attributes in different format styles & different encoding schemes.

→ The format difference were reconciled the problem of identifying & removing duplicated records was addressed.

② Data integration:-

→ It defines the heterogeneous data from multiple sources combined in a common source.

✳ In the hospital diabetic patient data is scattered in hospital Database.

③ Data selection:-

→ Data selection is defined as the process where data relevant to the analysis is decided and retrieved from the data collection.

✳ Find the diabetic patient info from a specific area or category of hospital management DBMS.

④ Data Transformation:-

✳ Data Transformation is defined as the process of transforming data into appropriate form required by mining Procedure:-

It has two step process:-

→ Data Mapping: Assigning elements from source base to destination to capture transformation.

• Code generation: Creation of the actual transform programme.

5) Data mining:-

Data mining is defined as ~~discover~~ techniques that are applied to extract patterns potentially useful.

→ Transforms task relevant data into patterns.

→ Decides purpose of model using classification or characterization.

6) Pattern Evaluation:-

* To identify the truly interesting patterns representing knowledge based on some interestingness measures, &

7) Knowledge Presentation:-

* When visualization and knowledge representation techniques are used to present the mined knowledge to the user.