Data Warehouse:

It is a repository or place in which we can store the historical data, by which generate the reports and analyse the business key metric fields in order to improve the business.

The **Characteristics** of data warehouse are

It is subject oriented: in which we can focus on the particular area of analysis.

Integrity: by which combine multiple data from multiple sources.

It is time variant: means we can store historical data.

It is non-volatile, means we cannot modify any data within it.

If suppose want to change then added as new record.

Normal Database (OLTP)	**Data Warehouse (**OLAP)
OLTP (Online Transaction Processing)	OLAP (Online Analysis Process)
• It records the user current transaction data	• It maintain the historical data
• Tables and Joins are complex since they are normalized. (Avoid duplicates)	• Tables and Joins are simple since they are de-normalized.
• Optimised for keeping small amount of data	• Optimised for keeping large amount of data
• MB to GB	• GB to TB
• Small to Large	• Large to Very Large
• Entity relationship Modelling technique is used	• Dimension modelling technique is used
• Analyse the query time is less sub second to second	• Analyse the query time is more seconds to minutes
• Optimized (used) for write operations like insert, update, Delete	• Primarily Read only operation
• Application oriented	• Subject oriented
• Only single stream	• Integrity
• Volatile	• Non-volatile
• Handling single record at a time	• Handling multiple records at a time