

INTRODUCTION TO DATABASE

Introduction

Database is a collection of related data. Database management system is software designed to assist the maintenance and utilization of large scale collection of data. DBMS came into existence in 1960 by Charles. Integrated data store which is also called as the first general purpose DBMS. Again in 1960 IBM brought IMS-Information management system. In 1970 Edgor Codd at IBM came with new database called RDBMS. In 1980 then came SQL Architecture- Structure Query Language. In 1980 to 1990 there were advances in DBMS e.g. DB2, ORACLE.

Data

- Data is raw fact or figures or entity.
- When activities in the organization takes place, the effect of these activities need to be recorded which is known as Data.

Information

- Processed data is called information
- The purpose of data processing is to generate the information required for carrying out the business activities.

In general data management consists of following tasks

- Data capture: Which is the task associated with gathering the data as and when they originate.
- Data classification: Captured data has to be classified based on the nature and intended usage.
- Data storage: The segregated data has to be stored properly.
- Data arranging: It is very important to arrange the data properly
- Data retrieval: Data will be required frequently for further processing, Hence it is very important to create some indexes so that data can be retrieved

easily.

- **Data maintenance:** Maintenance is the task concerned with keeping the data up-to-date.
- **Data Verification:** Before storing the data it must be verified for any error.
- **Data Coding:** Data will be coded for easy reference.
- **Data Editing:** Editing means re-arranging the data or modifying the data for presentation.
- **Data transcription:** This is the activity where the data is converted from one form into another.
- **Data transmission:** This is a function where data is forwarded to the place where it would be used further.

Metadata (meta data, or sometimes meta information) is "data about data", of any sort in any media. An item of metadata may describe a collection of data including multiple content items and hierarchical levels, for example a database schema. In data processing, metadata is definitional data that provides information about or documentation of other data managed within an application or environment. The term should be used with caution as all data is about something, and is therefore metadata.

Database

- Database may be defined in simple terms as a collection of data
- A database is a collection of related data.
- The database can be of any size and of varying complexity.
- A database may be generated and maintained manually or it may be computerized.

Database Management System

- A Database Management System (DBMS) is a collection of program that enables user to create and maintain a database.
- The DBMS is hence a general purpose software system that facilitates the process of defining constructing and manipulating database for various applications.

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