DBMS

(Database Management System)

Database

It is a Systematic Collection of data. database supports storage and manipulation of database.

e.g :- IRCTC, Amazon, facebook etc.

DBMS

DBMS Stands for Database Management System.
It is a collection of Programs which enable its users to access database manipulate data and representation of data.

e.g :- My SQL, SQL, Oracle, DB₂ etc.
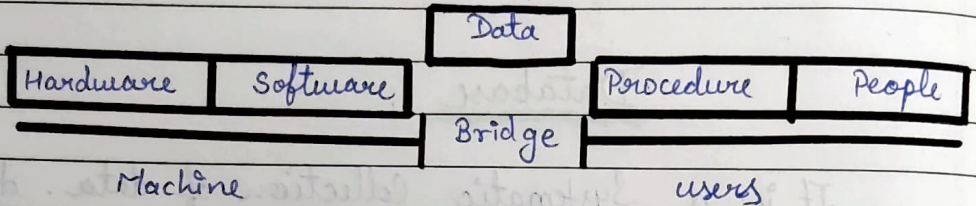DBMS is an intermediate layer b/w Programs and the data.

Components of DBMS

There are five Components in the database are:

- Hardware
- Software
- Data
- users
- Procedure

Hardware :- It is the actual Computer system used for keeping and accessing the database.

Software :- The Software is the actual DBMS. b/w the Physical layer database itself and the users of the system is a layer of Software, usually called the DBMS

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                           ┌──────────┐
                           │   Data   │
                           └──────────┘
┌──────────┬──────────┐              ┌──────────┬──────────┐
│ Hardware │ Software │              │Procedure │  People  │
└──────────┴──────────┘              └──────────┴──────────┘
                           ┌──────────┐
                           │  Bridge  │
                           └──────────┘
        Machine                              users
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Data :- It is the most important. Component of DBMS environment from the end users point of view.

Database Users :- There are a number of users who can access or retrieve data on demand using the applications and interface provided by the DBMS. The users can be :
- Naive users / Native users
- Online users
- Application Programmers
- Sophisticated users
- Database Administrator (DBA)
- Specialized users

Naive users :- Those users who need not be aware of the Presence of the database System or any other system supporting their usage. A user of an Automated Teller Machine (ATM) falls in this Category.

Online Users :- Communicate with database directly via an online terminal or indirectly via a user interface.

Sophisticated users :- Such users interact with the system without, writing Programs.

Specialized Users :- Such users are those, who write specialized database application that do not fit into the fractional data - processing framework.

Application Programmers :- Professional programmers are those who are responsible for developing application Programs or user interface.

Data base Administrator :- DBA is also responsible for the evaluation, Selection and implementation of DBMS Package.

Procedures :- Procedures refers instructions and rules designing a database. Manage a database with rules.

Log on to the DBMS
Start and Stop the DBMS
Handle Hardware or Software failures.
Backup copy Make.

Advantage of DBMS :-	Disadvantage of DBMS:
1 Controlling Redundancy	1. Complexity
2 Integrity Can be enforced	2. Memory Size
3 Inconsistency Can be avoided	3. Performance.
4 Data can be Shared	4. Higher impact of a failure
5 Data Model Can be developed	5. Cost of Conversion
6 Concurrency Control	6. Cost of DBMS Software