

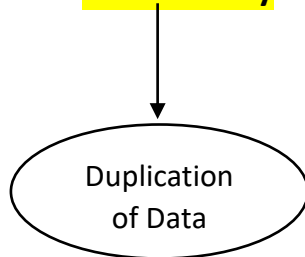
Unit -3

Database Management System

- **Database** is a collection of related items grouped together under a single heading. Example- school student's records, a customer file, bank account in bank, employee details etc.

- **Purpose or importance of database-**

1. Data **Redundancy** Reduces



2. **Sharing of data is possible**

3. **Security Feature-** Database Administrator looks after the computerised environment.

4. **Integrity is possible-** It means setting limit to the input value of data.

5. **Easy storage-** It is stored in hard disk.

6. **Database Independence**

- **Operations on Database-**

1. **Insert data-** This means entering data in a database.
2. **Reproduction of Information** – The stored data can produced as output.
3. **Modification-** This means updating of information.
4. **Editing-** This means correcting the errors.
5. **Deletion-** This means data which is not necessary can be deleted.
6. **Sequence-** This means data can be arranged in descending and ascending order.

- **Database Terminology-**

- **Record-** A row of data in a database table.
- **Field-** A field uniquely identifies each record in a database table.
- **Data entities-** An entity is an object, place, person or any event for which the system stores information.
- **Attribute-** It is a data element that describe an entity.

Entity	Attributes
Personal	Name, Address, Status
Book	ISBN, Title, Author, Price

- **Keys-** It allows us to identify a set of attributes that distinguish entities from each other.

- **Primary key-** A field or combination of fields that uniquely identifies each record in a table.
- **Secondary key-** Key that is not primary key for a table.

- **DBMS** means Database Management System, every organization whether it is school, college, business organization has to deal with various types of **data item**.

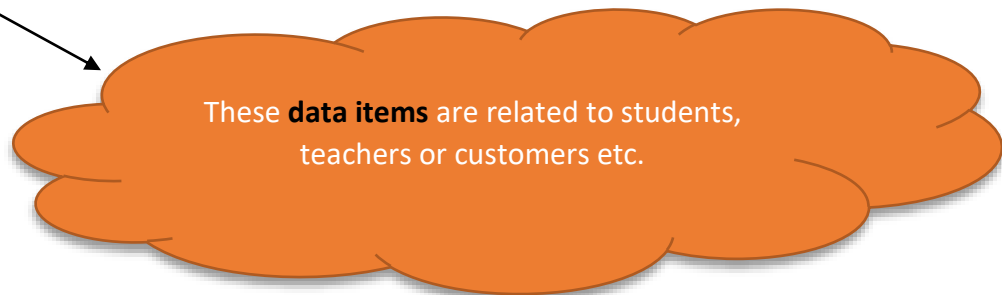
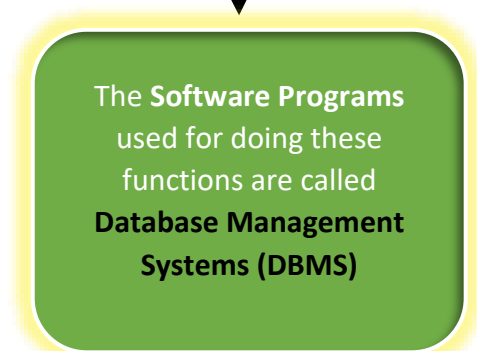


Table {

Roll No.	Name	Physics	Chemistry	Maths
1	Harsh	77	67	89
2	Raj	89	68	77
3	Rajesh	79	89	66
4	Avinash	88	79	90
5	Ritika	67	90	77

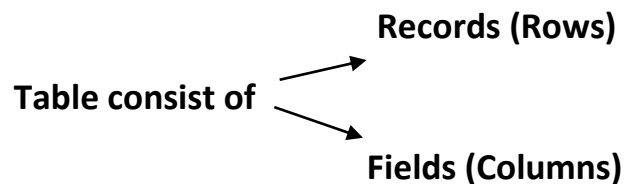
- Database management involves various **functions of adding, deleting, creating and editing of data in files.**



- **Example-** **MS-Access**, OpenOffice Base, LibreOffice Base, dBASE, etc.

- **Component of Database-**

➤ **Tables-** Tables are where the actual data is defined and entered.



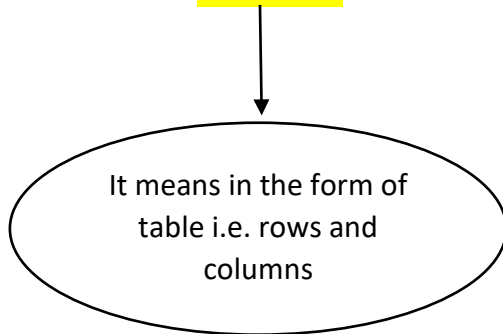
❖ **Elements of a Table**

- **Fields-** These are columns in a table.
- **Records-** These are rows in a table.
- **Data-** Set of characters that represent valid value.
- **Queries-** Questions about the data in a database.
- **Forms-** Designed for making data entry process easy.
- **Reports-** Report is made for printing records from a database.

Fields					
ID	ROLLNO	NAME	FATHER'S NAME	DOB	
1	9001	Pratiek Malhotra	T. Malhotra	07/06/1986	Records
2	9002	Ritik	T. Malhotra	12/10/1987	
3	9003	Saurabh Sharma	Sadanand Sharma	01/11/1987	
4	9004	Neeta Ganguly	Rajneesh Ganguly	19/06/1988	
5	9005	Pragya	Prashant Vaid	17/07/1987	
6	9006	Neha	Rajkumar	12/12/1986	
7	9007	Gunjan	Sandeep Anand	17/08/1988	
8	9008	Ashwin	Anand Verma	19/03/1987	
9	9009	Anubhav	Umapati Tiwari	31/01/1987	
10	9010	Ritesh	Rajender Prashad	10/12/1986	
11	9011	Nidhi	Satyender	27/08/1987	
12	9012	Yashwin	Davinder Sardana	15/11/1987	
13	9013	Deepak	Madhukar Deo	12/10/1987	
14	9014	Madhu	Ghansham	17/07/1988	
15	9015	Sushmita	Sushil Kumar	13/07/1987	
16	9016	Alankar	Rajnikant	06/12/1987	
17	9017	Prabhat	Dheerender	19/06/1988	
18	9018	Akash	Randhir Singh	18/07/1987	
19	9019	Rishabh	Ramesh Kumar	11/11/1987	
20	9020	Satyen	Satya Prakash	10/10/1987	

- **MS-Access : A Database Management Program**

MS- Access is a **relational** database management system.



MS-Access stores the database with **.accdb extension**.

➤ **Features of MS-Access-**

- ❖ Good for individual users and small groups.
- ❖ **Multiple tables** can be prepared in a single database.
- ❖ **Import data** from other MS Office & other applications.
- ❖ **Export data** to other MS Office & other applications.
- ❖ **Reports** can be prepared from the tables.
- ❖ **Forms** can be prepared.
- ❖ **Queries** are used.

*Happiness Depends upon
Ourselves.*



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