

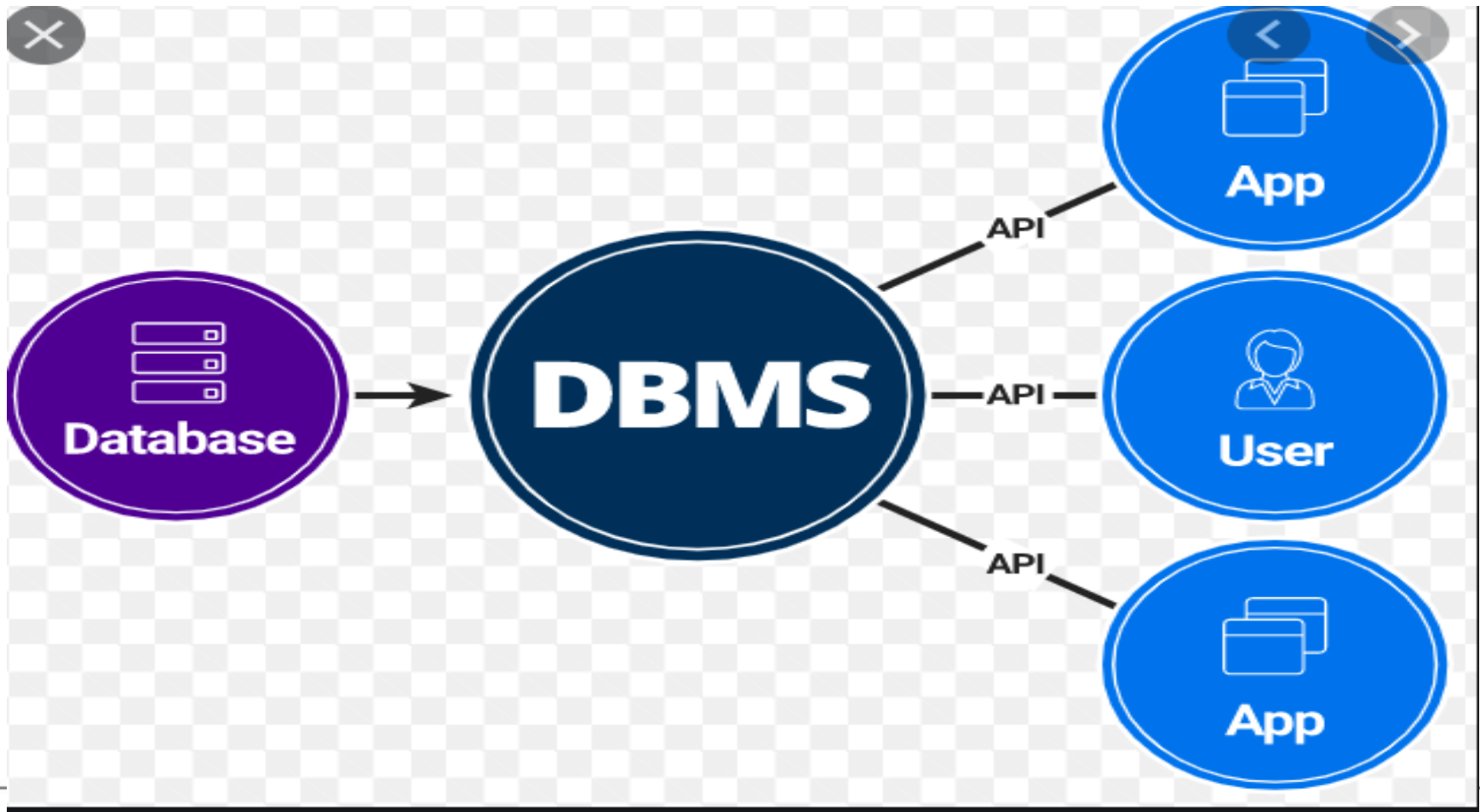
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Class VIII , Ch-2  
PERIOD-1

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# DATABASE AND DBMS

- A database is an organized collection of data. It helps us to enter, manage access, and analyze a large amount of Information, quickly and efficiently.
- All these operations that you perform, like adding, updating, sorting, editing, deleting, etc., are the functions of a database.
  
- A Database Management System (DBMS) Is a computerized record keeping system that enables you to create, modify, store, and extract information from a database.
- It saves time and energy The main function of a DBMS is to provide the users with efficient and reliable methods of data retrieval.
  
- Moreover, it reduces the chances of errors creeping into the database to a great extent. Therefore, data handling using DBMS becomes fast and efficient.
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## TYPES OF DATABASE

- There are mainly two types of database:
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- **FLAT FILE DATABASE:** A flat file database refers to the data files that contain records, which have a small fixed no of fields without any structured relationship. For example Microsoft Excel
- **RELATIONAL DATABASE :** A relational Database stores the data in several tables and link those tables together to get common piece of information. For example Microsoft Access, Microsoft SOL server, Oracle etc.

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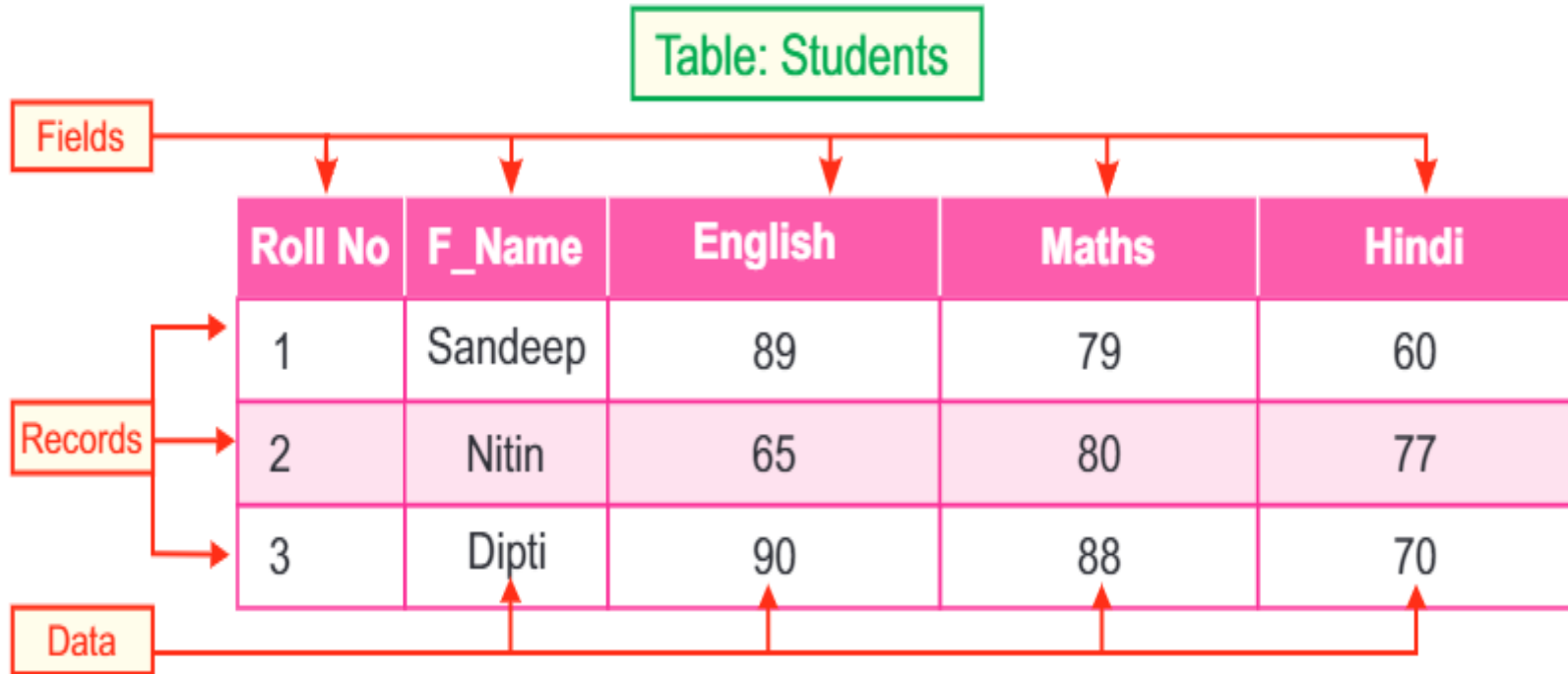
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# Tables / Elements of Table

- **TABLES** : Tables are the building blocks of a database. They store the complete data in a structured manner, I.e., in the form of rows and columns. Every table has a finite number of columns and rows.
- Elements of a Table Fields: All the columns in a table are called fields.
- A **field** describes a particular attribute of all the records in a table. For example, the field that mentions the Roll No. of the table: Students', will store the roll numbers of all the students.
- **Records**: The rows in a table are called records. A record contains the values for all the fields that belong to a single person or an entry.
- **Data** : A set of characters that represents a valid value known as Data. For example 3, Dipti, 90, mango etc .

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**Figure 2.1: Elements of a Table**

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- 2. **QUERIES:** t queries help us to retrieve the filtered data based upon some conditions.
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- 3. **FORMS:** Forms are the user friendly interfaces that facilitate the process of entering data in tables and queries. A form has an attractive interface that accepts data from the user and forwards it to the corresponding table or query.
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- 4 **REPORTS:** Reports are used to display the selected data in a printable format. They collect the summarized data from one or more columns.

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## ADVANTAGES OF DBMS

- A DBMS provides the users with efficient and reliable methods of data retrieval.
- It facilitates the reduction of data redundancy (duplication of data) and elimination of multiple copies same data at different locations.
- It increases the efficiency, speed, and flexibility in searching and accessing information, thus saving time and energy.
- DBMS facilitates sharing of data among different users based on their individual needs.
- In a DBMS, the data administration has a complete control over the database. It ensures that data is accessed only by the authorized users.
- A DBMS also supports the data integrity as it ensures that the stored data follows the customized standards of an organization. Suppose, the maximum marks of an examination are set to 100, you can have rules to make sure that the database accepts the numbers only between the range of 0-100.

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# Home Assignment

- 1..What is Database?
- 2. What is DBMS?
- 3. What are the types Of Database?
- 4. Whar are the advantages of DBMS?

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# THANKING YOU

# ODM EDUCATIONAL GROUP