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What is Microsoft Access?

Microsoft Access is a Database Management System offered by Microsoft. It uses the Microsoft Jet Database Engine and comes as a part of the Microsoft Office suite of application.

Microsoft Access offers the functionality of a database and the programming capabilities to create easy to navigate screens (forms). It helps you analyze large amounts of information, and manage data efficiently.

Important Terms and Basic Objects

Now in this Microsoft Access note, we will learn about some important terms and basic objects in MS Access:

What is the primary key?
A primary key is **the column or columns that contain values that uniquely identify each row in a table**. A database table must have a primary key for optimize to insert, update, restore, or delete data from a database table.

What is relationship?

A relationship in Access **helps you combine data from two different tables**. Each relationship consists of fields in two tables with corresponding data. For example, you might have a ProductID field in a Products table and in an OrderDetails table.

Database File:

It is a file which stores the entire database. The database file is saved to your hard drive or other storage devices.

Datatypes:

Datatypes are the properties of each field. Every field has one datatype like text, number, date, etc.

Table

- A Table is an object which stores data in Row & Column format to store data.
- A Table is usually related to other tables in the database file.
- Each column must have Unique name
- We can also define Primary Key in a table.

Query

- Queries answer a question by selecting and sorting and filtering data based on search criteria.
- Queries show a selection of data based on criteria (limitations) you provide.

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- Queries can pull from one or more related Tables and other Queries.
- Types of Query can be SELECT, INSERT, UPDATE, DELETE.

Form

- A form is a database object that you can use to create a user interface for a database application.
- Forms help you to display live data from the table. It mainly used to ease the process of data entry or editing.

Report

- A report is an object in desktop databases primarily used for formatting, calculating, printing, and summarizing selected data.
- You can even customize the report's look and feel.

Microsoft Access Data Types

MS Access common data types are listed below:

Type of Data	Description	Size
Short Text	Text, including numbers which does not need calculation. (e.g., Mobile numbers).	Up to 255 characters.
Long Text	This data type is used for lengthy text or alphanumeric data.	Maximum 63, 999 characters.
Number	Numeric data type used for storing mathematical calculations.	1, 2, 4, 8, and 16 bytes.
Date/Time	Store Date/time for the years 100 through 9999.	8 bytes.
Currency	It allows you to store currency values and numeric data with one to four decimal places.	8 bytes.
Auto Number	Assign a unique number or assigned by Microsoft Access when any new record is created. Usually used as the primary key	Four bytes (16 bytes if it is set as a Replication ID).
Yes/No	It only stores logical values Yes and No.	1 bit
Attachment	It stores files, such as digital photos. Multiple files can be attached per record.	Up to 2 GB Data can be stored.
OLE objects	OLE objects can store audio, video, other Binary Large Objects.	Up to 2 GB data can be stored.
Hyperlink	Text or combinations of text and numbers stored. That text is used as hyperlink address.	Each part of a Hyperlink data type allows you to store a maximum 2048 characters.
Calculated	Helps you to create an expression that uses data	You can create an expression

from one or more fields.

which uses data from one or more fields.