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Microsoft Access is a Database Management System (DBMS) from Microsoft that combines the relational Microsoft Jet Database Engine with a graphical user interface and softwaredevelopment tools. It is a member of the Microsoft Office suite of applications, included in the professional and higher editions.

• Microsoft Access is just one part of Microsoft’s overall data management product strategy.

• • It stores data in its own format based on the Access Jet Database Engine.

• • Like relational databases, Microsoft Access also allows you to link related information easily. For example, customer and order data. However, Access 2013 also complements other database products because it has several powerful connectivity features.

• • It can also import or link directly to data stored in other applications and databases.

• • As its name implies, Access can work directly with data from other sources, including many popular PC database programs, with many SQL (Structured Query Language) databases on the desktop, on servers, on minicomputers, or on mainframes, and with data stored on Internet or intranet web servers. • • Access can also understand and use a wide variety of other data formats, including many other database file structures.

• • You can export data to and import data from word processing files, spreadsheets, or database files directly.

• • Access can work with most popular databases that support the Open Database Connectivity (ODBC) standard, including SQL Server, Oracle, and DB2.

• • Software developers can use Microsoft Access to develop application software

Microsoft Access stores information which is called a database. To use MS Access, you will need to follow these four steps:

• Database Creation - Create your Microsoft Access database and specify what kind of data you will be storing.

• Data Input - After your database is created, the data of every business day can be entered into the Access database.

• Query - This is a fancy term to basically describe the process of retrieving information from the database.

• Report (optional) - Information from the database is organized in a nice presentation that can be printed in an Access Report.

**Architecture**

• Access calls anything that can have a name an object. Within an Access desktop database, the main objects are tables, queries, forms, reports, macros, data macros, and modules.

• If you have worked with other database systems on desktop computers, you might have seen the term database used to refer to only those files in which you store data.

• But, in Access, a desktop database (.accdb) also includes all the major objects related to the stored data, including objects you define to automate the use of your data.

**MS Access — Objects**

MS Access uses “objects" to help the user list and organize information, as well as prepare specially designed reports. When you create a database, Access offers you Tables, Queries, Forms, Reports, Macros, and Modules. Databases in Access are composed of many objects but the following are the major objects:

• Tables •

• Queries •

• Forms •

• Reports

Together, these objects allow you to enter, store, analyze, and compile your data. Here is a summary of the major objects in an Access database;

**Table**

Table is an object that is used to define and store data. When you create a new table, Access asks you to define fields which is also known as column headings

• Each field must have a unique name, and data type. •

• Tables contain fields or columns that store different kinds of data, such as a name or an address, and records or rows that collect all the information about a particular instance of the subject, such as all the information about a customer or employee etc. •

• You can define a primary key, one or more fields that have a unique value for each record, and one or more indexes on each table to help retrieve your data more quickly.

**Query**

An object that provides a custom view of data from one or more tables. Queries are a way of searching for and compiling data from one or more tables.

• Running a query is like asking a detailed question of your database. •

• When you build a query in Access, you are defining specific search conditions to find exactly the data you want. •

• In Access, you can use the graphical query by example facility or you can write Structured Query Language (SQL) statements to create your queries. •

• You can define queries to Select, Update, Insert, or Delete data.

• You can also define queries that create new tables from data in one or more existing tables.

**Form**

Form is an object in a desktop database designed primarily for data input or display or for control of application execution. You use forms to customize the presentation of data that your application extracts from queries or tables.

• Forms are used for entering, modifying, and viewing records. •

• The reason forms are used so often is that they are an easy way to guide people toward entering data correctly. •

• When you enter information into a form in Access, the data goes exactly where the database designer wants it to go in one or more related tables.

**Report**

Report is an object in desktop databases designed for formatting, calculating, printing, and summarizing selected data.

• You can view a report on your screen before you print it. •

• If forms are for input purposes, then reports are for output. •

• Anything you plan to print deserves a report, whether it is a list of names and addresses, a financial summary for a period, or a set of mailing labels. •

• Reports are useful because they allow you to present components of your database in an easy-to-read format. •

• You can even customize a report's appearance to make it visually appealing. •

• Access offers you the ability to create a report from any table or query.