

An Introductory Guide to ACCESS 2007

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Letter of Transmittal

To Dan Jones
From Jamie Baker
Subject Microsoft Access 2007 User Manual
Date December 06, 2012

This is a user manual for the Microsoft Office 2007 program Access. It is designed to introduce the program so that beginning users may learn what Access is capable of achieving. Users will also learn basic Access concepts, such as creating tables, and building queries, which are vital to understanding relational databases such as Access.

The audience for this manual is beginner level Microsoft Access users. This manual specifically discusses how Access could be utilized to create an employee-tracking database, so the primary audience is office managers or small business owners who are not familiar with Access but who need an easy way to track employees.

All parts of this manual are derived from my own personal experience. I have created and managed multiple Microsoft Access databases.

This manual is specifically designed for Microsoft Access 2007. There are similarities between the recent versions of Access (2003, 2007, and 2010), but some aspects would have to be modified for ease of use with different versions.

I created this manual because Microsoft Access is a great program with numerous uses, yet many people are intimidated by it because it is not as user friendly as other Microsoft programs such as Word and Excel. Because Access can track anything from employees, to work efficiency, to product sales, many office managers and small business owners could benefit from knowing how to create a simple database. Once users are familiar with the basic concepts of Access, they become more confident in their skills and can create even more complex and diverse databases. This could help them to understand their business as well as manage their work more effectively.

Introduction

Microsoft Access is a database management program available in the Microsoft Office Suite. It is capable of storing data, running queries, and creating reports. Access can be used for simple, one or two table databases, or it can be utilized for more sophisticated databases. It is great to use in the work place or office setting because it is capable of having multiple front ends, meaning that more than one user can access the database at one time.

This manual is designed for the beginner Access users who are comfortable using Microsoft Office products (such as Word, Excel, or Power Point). Access comes equipped with templates that can be modified to fit the user's needs; however, it's often easier to simply create your own Access database from scratch. This manual will instruct beginner users in the following areas:

1. Creating tables
2. Creating and running basic queries
3. Creating reports

While an Access database can be designed to have multiple front end users, for the purposes of this manual, the example database built here will be for one user. The examples in this manual are for an employee tracking database that a manager or small business owner might use to help run a small office or department. Of course, many of the skills learned can be applied to any number of other types of databases.

This manual is designed for **Microsoft Access 2007**. However, most of the aspects from Access 2007 are easily transferrable to Access 2003 or 2010.

Equipment

To operate this manual, you will need a computer equipped with **Microsoft Office Access 2007**, a monitor, a keyboard, and a mouse.

Getting Started

1. Double click on your Microsoft Access database to open the program.
This should be located either on your desktop or under **Programs** in your **Start Menu**.
(Fig. 1)



Fig. 1 – Microsoft Access icon

2. Once the program opens, select **Blank Database**.
A field, **File Name**, will appear on the right portion of your screen.
3. Rename your database to, “Employee Tracking.” (Fig 2)



Fig. 2 – Rename database

4. Click **Create**.
A new blank database will open.

Building Tables

Tables are the backbone of a database. When building a database, it's important to consider the actual data that you will be storing and how you want it organized. For an employee tracking database, one table that will be a necessity is an “employees” table. This table will contain all of the personal information that you want to store in regards to your employees. For example, at a minimum, this table should include:

1. First and last names
2. Employee ID number
3. Position title
4. Hire date

If you do not already have pre-assigned ID numbers for your employees, Access can create these numbers for you. For learning how an **AutoNumber** works, we will have Access create employee ID numbers in our first table.

Create a Table

1. With your new Access database open, the main portion of the screen will be a blank table that looks similar to a blank Excel spreadsheet.
2. To build our first table, click on **View** in the top, left portion of your screen. This will change the view of the table from **Datasheet View** to **Design View**. (Fig.3)

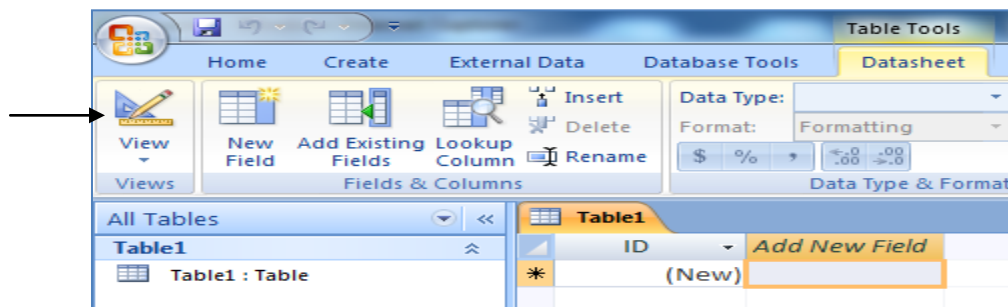


Fig. 3 – Design view of a table

3. Click in the first column, under **Field Name** (that is currently populated with **ID**), and change the name of the field to “Employee ID.” Because we are having Access assign employee IDs, we will leave the **Data Type** as **AutoNumber**.

*An **AutoNumber** is a number assigned by Access.

Note the **key symbol next to this field as well. The key identifies that field as a **Primary Key**. A **Primary Key** field cannot have duplicate information. Since we do not want any employees to have the same **ID**, we want this field to be a **Primary Key**. If an employee and their **ID** are deleted from the database, their number still cannot be duplicated.

4. Move your cursor to the next blank field under **Field Name** and type, “Last Name.” The **Data Type** will automatically adjust to **Text**. Leave the **Data Type** as **Text**.
5. Continue adding field names (“First Name” and “Position Title”) with the **Data Type** as **Text**. Your table should now look like this: (Fig. 4)

Field Name	Data Type	Description
Employee ID	AutoNumber	
Last Name	Text	
First Name	Text	
Position Title	Text	

Fig. 4 – Design view of table with field names

6. To add the **Hire Date** field, be sure to select the **Date/Time** option from the drop down menu under **Data Type**.
7. To save your table, click on **View**.
A dialogue box will appear. (Fig. 5)

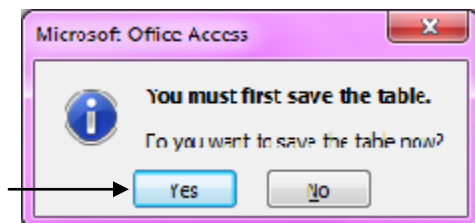


Fig. 5 – Save Table dialogue box

8. Select **Yes**.
9. Save your table as “EmployeeData.”
You are now viewing your table in **Datasheet View**.
10. To begin adding data to your table, select the **Last Name** field and begin typing.

*You will notice that as you begin typing, the **Employee ID** field will automatically populate with a number.
11. Continue adding employee information. Your table, in **Datasheet View**, should now look similar to this: (Fig. 6)

EmployeeData					
Employee ID	Last Name	First Name	Position Title	Hire Date	Add New Field
1	Smith	Jon	Supervisor	01/01/2011	
2	Jones	Ann	Manager	06/01/2011	
3	Blake	Tim	Rep I	12/31/2011	
4	Thomas	Alice	Rep III	05/01/2012	
*	(New)				

Fig. 6 – Table in datasheet view with employee information

12. When you have completed entering data, click the **Save** icon located in upper banner to save the data in your table. (Fig. 7)



Fig. 7 – Save icon

13. Continue creating tables following the above procedure.
For the purposes of this manual, only the “Employee Data” table is necessary.

Building Queries

In Access, a query is a way to extract information from your tables. There are numerous types of queries available in Access that can allow users to perform functions via the query. For this manual, we will be building a **Select Query** which will only extract the information that we request.

For our purposes, we will build a query that tells us which employees, using their last names, were hired between January 1, 2011 and January 1, 2012.

Create a Query

1. On the **Create** tab, select **Query Design**.
2. From the **Show Table** dialogue box, select **EmployeeData** from the **Tables** tab. (Fig. 8)

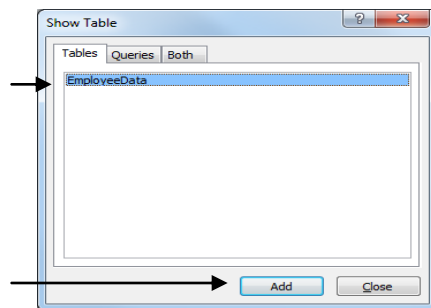


Fig. 8 – Show Table dialogue box

3. Click **Add**.
4. Double click **Last Name** from within the **EmployeeData** box in the top portion of the query.
The field **Last Name** will now appear in the bottom portion of the query. (Fig. 9)

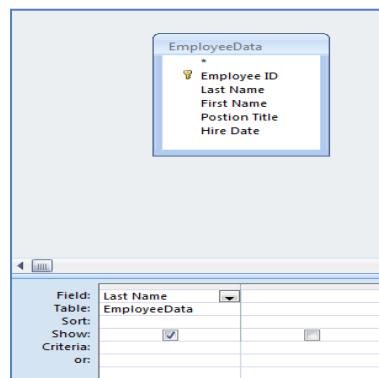
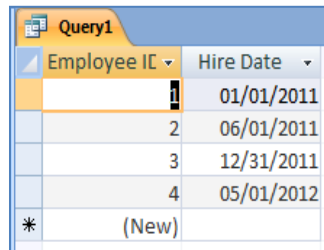


Fig. 9 – Adding fields to a query

5. Double click **Hire Date** from within the **EmployeeData** box in the top portion of the query.
The field **Hire Date** will now appear in the bottom portion of the query.

6. To view all employees and their hire dates, click **View** and select **Datasheet View**. The query should now appear like this: (Fig. 10)

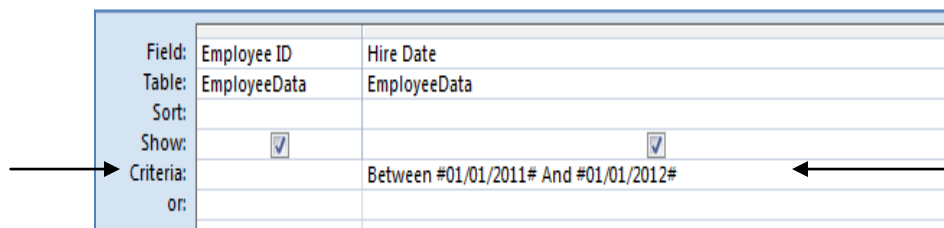


Employee ID	Hire Date
1	01/01/2011
2	06/01/2011
3	12/31/2011
4	05/01/2012
*(New)	

Fig. 10 – Datasheet view of query

7. To return to the **Design View** of the query, click on **View** and select **Design View**.
8. To view only employees who were hired between the dates of January 1, 2011 and January 1, 2012, enter the following text into the **Criteria** field under **Hire Date** in the bottom portion of the query: (Fig. 11)

Between #01/01/2011# And #01/01/2012#



Field:	Employee ID	Hire Date
Table:	EmployeeData	EmployeeData
Sort:		
Show:	☒	☒
Criteria:		Between #01/01/2011# And #01/01/2012#
or:		

Fig. 11 – Criteria for specific hire dates

9. To view the results of the query, click **View** and select **Datasheet View**. The query should now appear like this: (Fig. 12)



Last Name	Hire Date
Smith	01/01/2011
Jones	06/01/2011
Blake	12/31/2011
*(New)	

Fig. 12 – Datasheet view of query of employees with hiring date criteria

10. Click the **Save** icon.
11. In the **Save As** dialogue box, save the query as “EmployeeByHireDate,” and click **OK**. (Fig. 13)

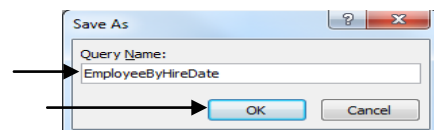


Fig. 13 – Save As dialogue box

Building Reports

After you have created tables and built queries to fetch the information that you need from your tables, you can use Access to build reports to represent the information in an organized and easy to read format.

There are several ways that reports can be generated in Access. There is a **Report Wizard** that guides users through building a custom report, as well as a blank form that allows users to build a report from scratch. For this manual, we will discuss how to build a report based on a previously built query.

Create a Report

1. Ensure that the query, "EmployeeByHireDate" is open in **Datasheet View**.
2. Click on the **Create** tab and select **Report** from the **Reports** group. (Fig. 14)

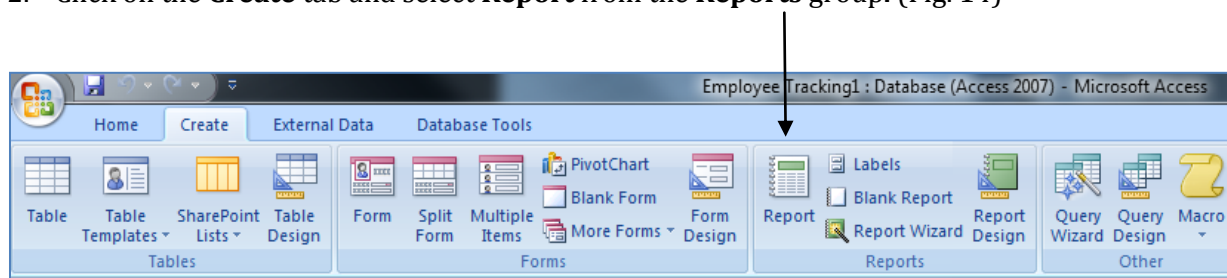


Fig. 14 – Report selection in the Access banner

3. Access will generate a report based off of the information from the "EmployeeByHireDate" query. The report will display in **Layout View**. (Fig. 15)



Fig. 15 – Generated report based on "EmployeeByHireDate" query

Customize a Report

After the report has been generated, there adjustments that can be made to customize the report and make it more meaningful. Anything field on the report, including the date and time field, can be deleted or edited from the report **Design** or **Layout** views.

For the purpose of this manual, we will customize the report by giving it a more meaningful name. We will also sort the report in alphabetical order by the employees' last names.

1. With the report in **Layout** view, click on the title of the report and highlight "EmployeeByHireDate." (Fig. 16)



Fig.16 – Highlight the title of the report

2. Type, "Employees Hired in 2011" over the existing title.
3. Under the **Format** tab in the **Grouping & Totals** group, select **Group & Sort**. (Fig. 17)

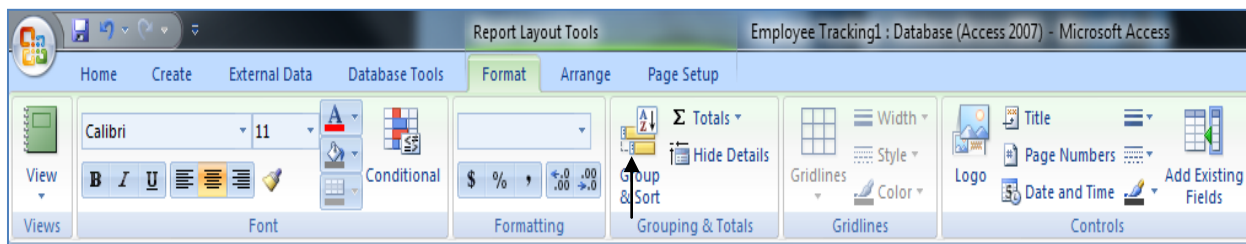


Fig. 17 – Group & Sort selection on Access Banner

4. Click on the box labeled **Add a sort** located at the bottom of the report. (Fig. 18)

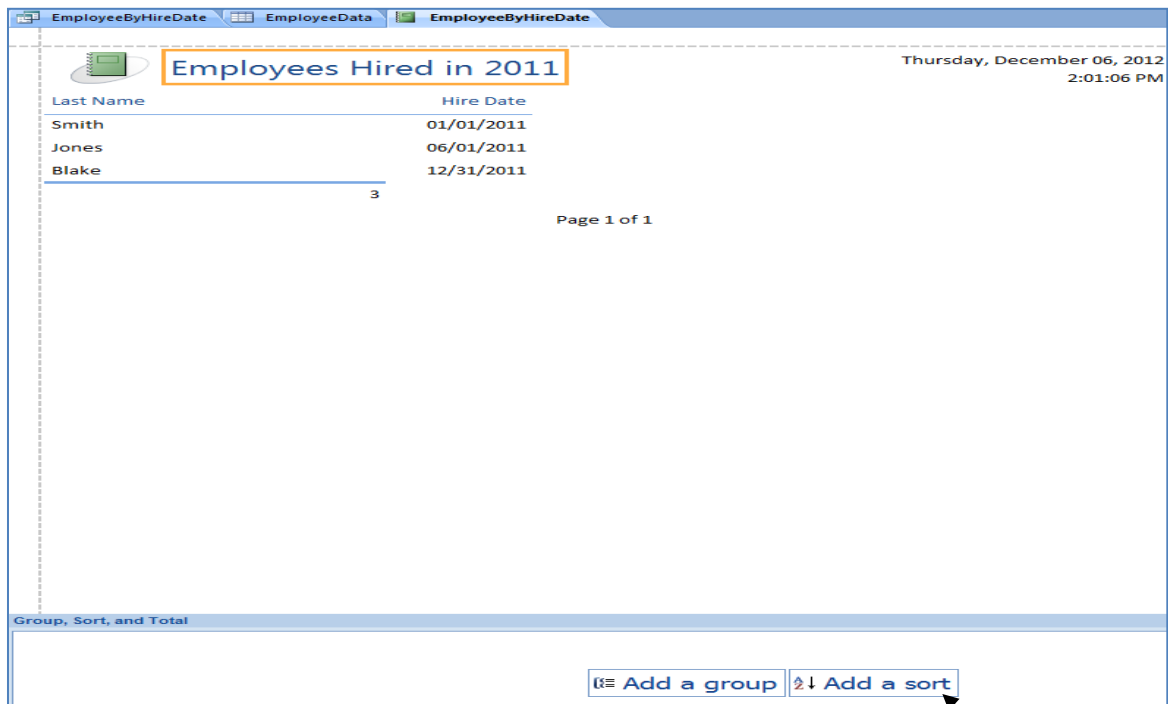


Fig. 18 – Adding a sort to a report

5. Highlight and select **Last Name** from the **Select Field** drop down menu.
6. Ensure that the **Sort By** is set to: **with A on top**. (Fig. 19)

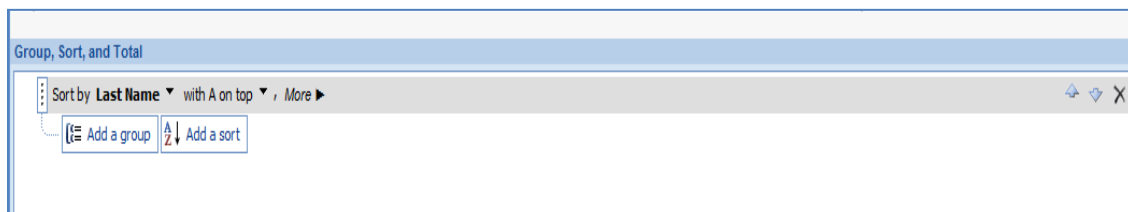
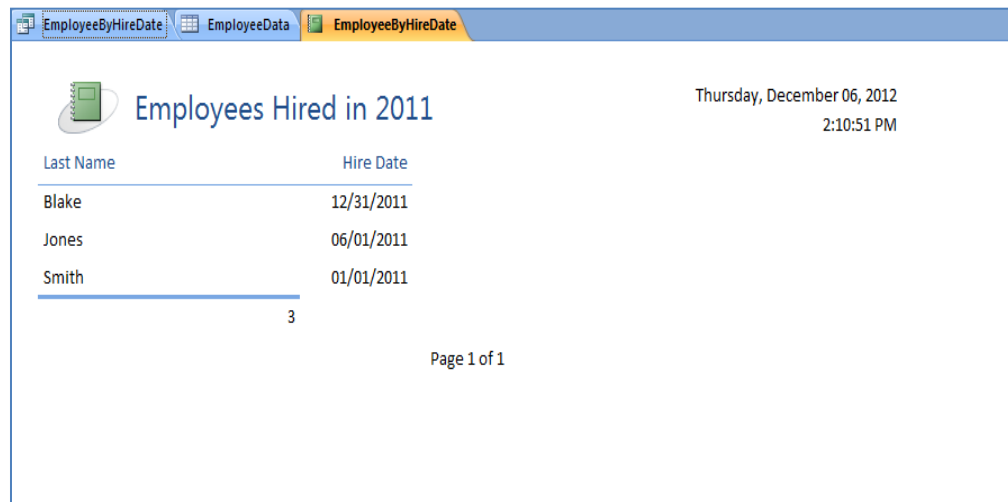


Fig. 19 – Sort with A on top

*Note that the report is now sorted in alphabetical order.

7. To view the report in **Report View**, click on **View** in the top, left corner of the banner.
8. Click the **Save** icon.
9. Save the report as, "EmployeesHired2011."

10. The final report should look similar to this: (Fig. 20)



Last Name	Hire Date
Blake	12/31/2011
Jones	06/01/2011
Smith	01/01/2011

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Fig. 20 – Employees Hired in 2011 report

Tips

1. You can access any saved table, query, or report in the navigation pane located on the left side of the database. (Fig. 21)

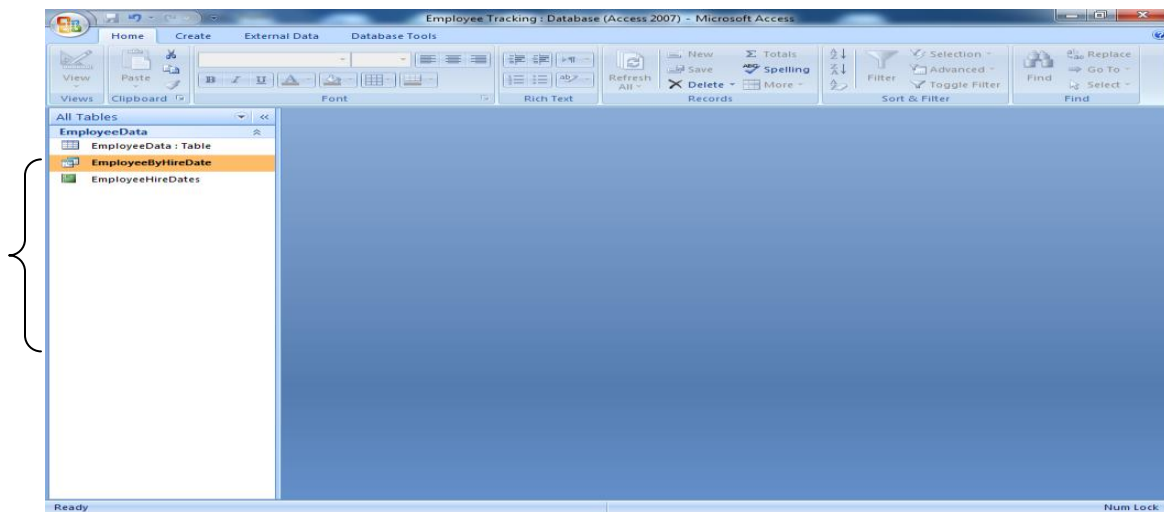


Fig. 21 – Navigation window

2. Always save tables, queries, and reports with names that are meaningful to the subject.
3. Remember to save the database before closing it.

