

LAB# 1

Introduction to MS-ACCESS

Databases in Access 2010 are composed of four objects: **tables**, **queries**, **forms**, and **reports**. Together, these objects allow you to enter, store, analyze, and compile your data however you want.

The Access objects

Tables, queries, forms, and reports are the framework for any database you create in Access. Understanding how each of these objects works will help you create a database that will be useful and help you retrieve the information you need.

Tables

A screenshot of a Microsoft Access table. The table has four columns: ID, First Name, Street Address, and City. The first column, 'ID', is the primary key. The second column, 'First Name', is highlighted with a blue box and labeled 'Column'. The third column, 'Street Address', is highlighted with a yellow box and labeled 'In'. The fourth column, 'City', is highlighted with a green box and labeled 'Row'. Orange arrows point from the labels to their respective columns. The table data includes names like Barbara, Bob, Juanita, etc., and addresses like 29 North Luke Ct., Raleigh, etc.

ID	First Name	Street Address	City
20	Barbara	29 North Luke Ct.	Raleigh
29	Bob	63-C Chapel Ct.	Durham
30	Juanita	123 Garden Plow Way	Raleigh
31	Sara	127 South Pejulup Ln.	Raleigh
32	Larry	124 Heuristic Way	Raleigh
33	Samantha	2380 New Cove Rd.	Garner
34	Jamie	131 W Clinton St.	Raleigh
35	Patti	9 Atlantic Blvd	Raleigh
36	Greg	2520 Hopkins Rd.	Raleigh
37	Carol	3201 Glenwood Ave. U	Raleigh
38	Zoey	817 Hillsborough St. A	Raleigh
39	Danny	202 Cedar Ln.	Raleigh
40	Vig	53 Pine St.	Raleigh
41	Jeffery	1245 Ross Park Dr.	
42	William	1122 Glenwood Ave.	
43	Megan	311 Cook St.	
44	Dick	105 David St.	
45	Marjan	202 C St. Unit A	Raleigh
46	Colin	321 E. Edenton St.	Raleigh

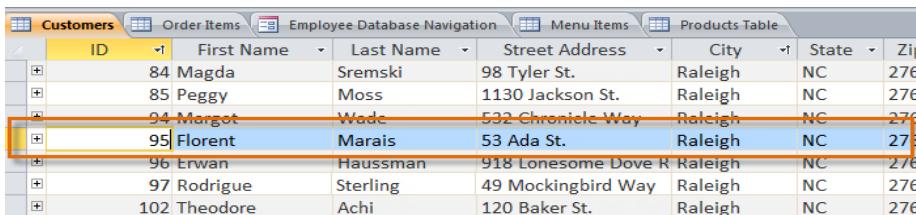
In Access, all data is stored in **tables**, which puts tables at the heart of any database. You might already know that tables are organized into vertical **columns** and horizontal **rows**.

In Access, rows and columns are referred to as **records** and **fields**. A **field** is more than just a column; it's a way of organizing information by the **type** of data it is. Every piece of information within a field is of the same **type**. For example, every entry in a field called **First Name** would be a name, and every entry in field called **Street Address** would be an address.

A screenshot of a Microsoft Access table. The table has four columns: ID, First Name, Last Name, and Street Address. The first column, 'ID', is the primary key. The second column, 'First Name', is highlighted with a blue box and labeled 'Field Names'. The third column, 'Last Name', is highlighted with a yellow box. The fourth column, 'Street Address', is highlighted with a green box. Orange arrows point from the labels to their respective columns. The table data includes names like Joy, Frances, Latavia, etc., and addresses like 807 Lee St., Raleigh, etc.

ID	First Name	Last Name	Street Address
67	Joy	Zachman	807 Lee St.
68	Frances	Trentor	901 Kenan Rd.
69	Latavia		McIver Ct.
70	Kurtis		3 Cobb Rd.
71	Lashaunda		1 Hinton St.
72	Lieselotte		2 Spencer Ave.
73	Sula	Smart	56 Dey Rd.
74	Jude	Smith	929 Greenlaw Dr.
75	Katharine	Kellerman	76 Murphy Ave.
76	Ruiari	O'Brien	100 Aycock St.
77	Tyra	Kirby	8700 Stacey Rd.
78	Michiko	Akiwana	901 Glenwood Ave.
79	Betty	Potter	80 Greene St.
80	Elizabeth	Loges	44 Steven Rd.

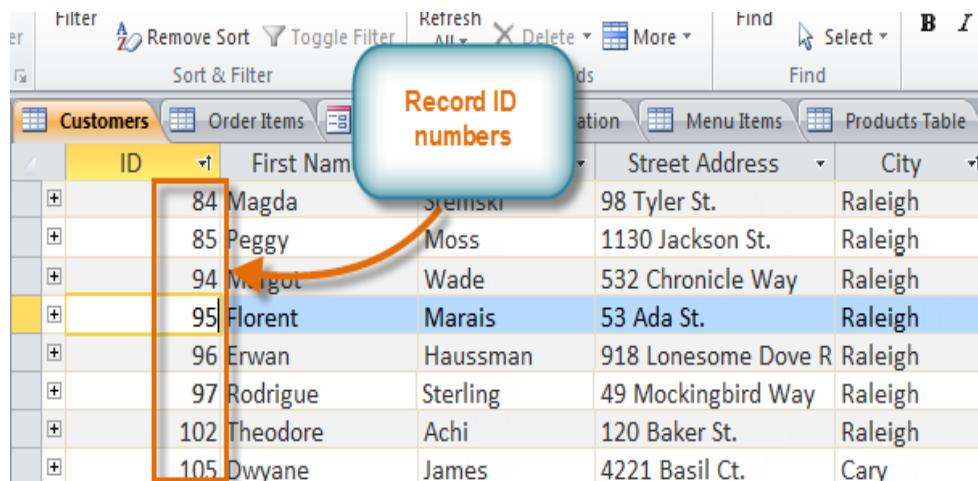
Likewise, a **record** is more than just a row; it's a unit of information. Every cell in a given row is part of that row's record.



ID	First Name	Last Name	Street Address	City	State	Zip
84	Magda	Sremski	98 Tyler St.	Raleigh	NC	276
85	Peggy	Moss	1130 Jackson St.	Raleigh	NC	276
94	Margot	Wade	532 Chronicle Way	Raleigh	NC	276
95	Florent	Marais	53 Ada St.	Raleigh	NC	276
96	Erwan	Haussman	918 Lonesome Dove R	Raleigh	NC	276
97	Rodrigue	Sterling	49 Mockingbird Way	Raleigh	NC	276
102	Theodore	Achi	120 Baker St.	Raleigh	NC	276

Notice how each record spans several fields.

See the **number** at the left of each row? That's the **ID number** that identifies each record. The ID number for a record refers to every piece of information contained in that row.



Record ID numbers

ID	First Name	Last Name	Street Address	City
84	Magda	Sremski	98 Tyler St.	Raleigh
85	Peggy	Moss	1130 Jackson St.	Raleigh
94	Margot	Wade	532 Chronicle Way	Raleigh
95	Florent	Marais	53 Ada St.	Raleigh
96	Erwan	Haussman	918 Lonesome Dove R	Raleigh
97	Rodrigue	Sterling	49 Mockingbird Way	Raleigh
102	Theodore	Achi	120 Baker St.	Raleigh
105	Dwyane	James	4221 Basil Ct.	Cary

Tables are good for storing **closely related information**. Let's say you own a bakery and have a database that includes a table with your customers' names and information—their phone numbers, home addresses, and email addresses. Because these pieces of information are all details about your customers, you'd include them in the same **table**. Each customer would be represented by a unique **record**, and each type of information about customers would be stored in its own field. If you decided to add any more information—say, a customer's birthday—you would simply create a new field within the same table.

