

# Lesson 1

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# what is a database ?

**Column Or Field**

**Row Or Record**

Employee ID	Last Name	First Name	Title	Title Of	Birth Date
1	Davolio	Nancy	Sales Representative	Ms.	08-Dec-1968
2	Fuller	Andrew	Vice President, Sales	Dr.	19-Feb-1952
3	Leverling	Janet	Sales Representative	Ms.	30-Aug-1963
4	Peacock	Margaret	Sales Representative	Mrs.	19-Sep-1958
5	Buchanan	Steven	Sales Manager	Mr.	04-Mar-1955
6	Suyama	Michael	Sales Representative	Mr.	02-Jul-1963
7	King	Robert	Sales Representative	Mr.	29-May-1960
8	Callahan	Laura	Inside Sales Coordinator	Ms.	09-Jan-1958
9	Dodsworth	Anne	Sales Representative	Ms.	02-Jul-1969

Record: 14 of 10

# What is a database management system (**DBMS**)

- A **database management system (DBMS)** is system software for creating and managing databases.

Examples :

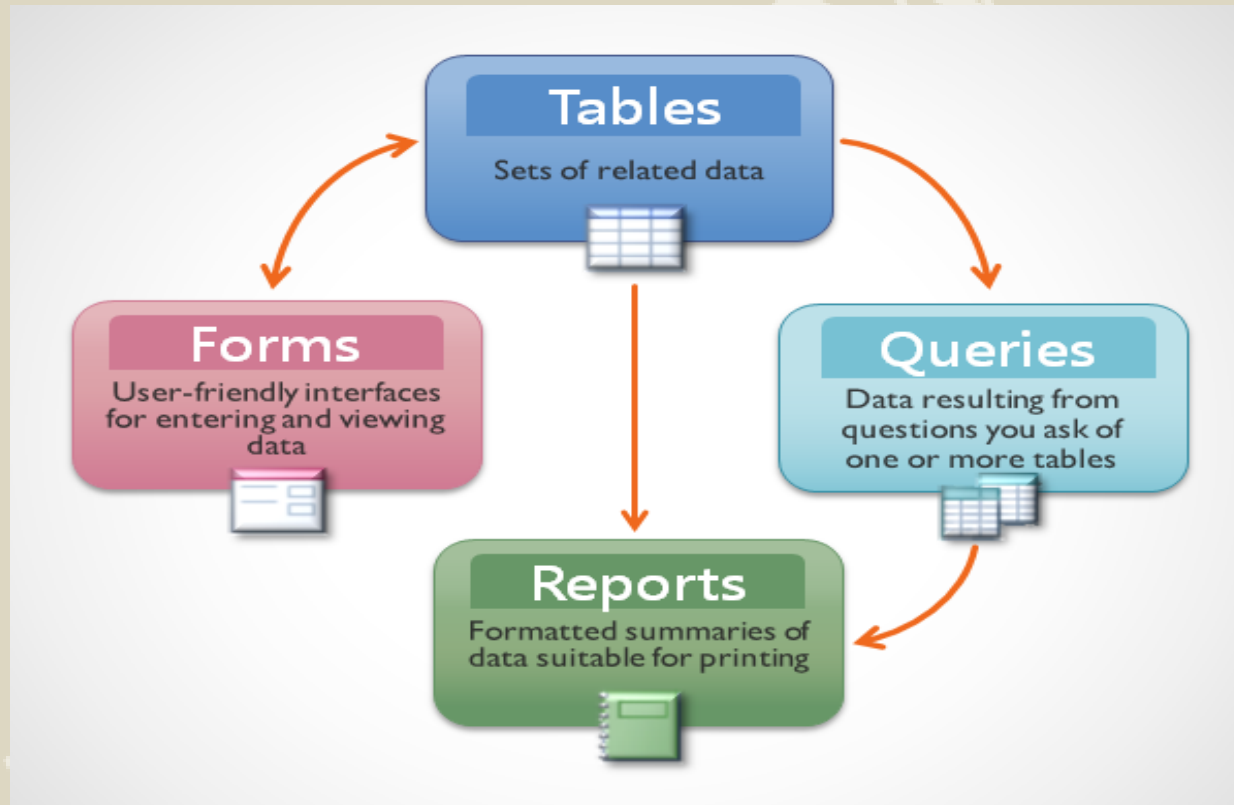
Microsoft Access ,MySQL ,Microsoft SQL Server and Oracle.

# What is Microsoft Access?

- Access : يەككە لە سىتە پروگرامى (Microsoft Office) لە سەر سىستىمى (Windows) و (Mac) كاردەكات ولەلايەن كۆمپانىيە (Microsoft) دروست كراوه وبە كاردىت بۆ دروستكردنى و بەرپۆهبردنى (Database)



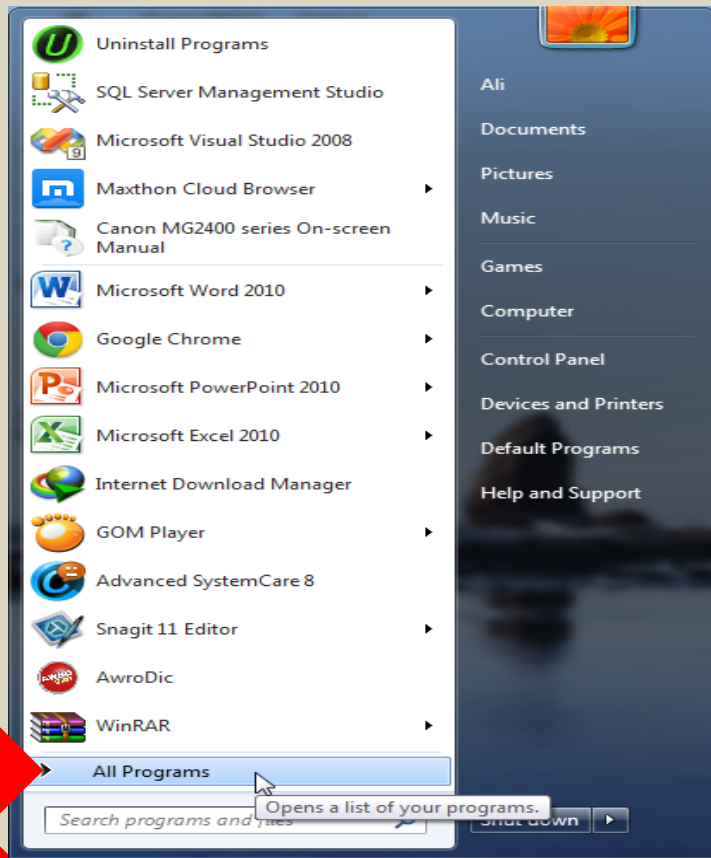
# Access Objects



# How to Open Microsoft Access 2010

Access چۆنیهتی کهردنهوه بهرنامهی

Start Click → All Programs Click → Microsoft Office Click → Access 2010



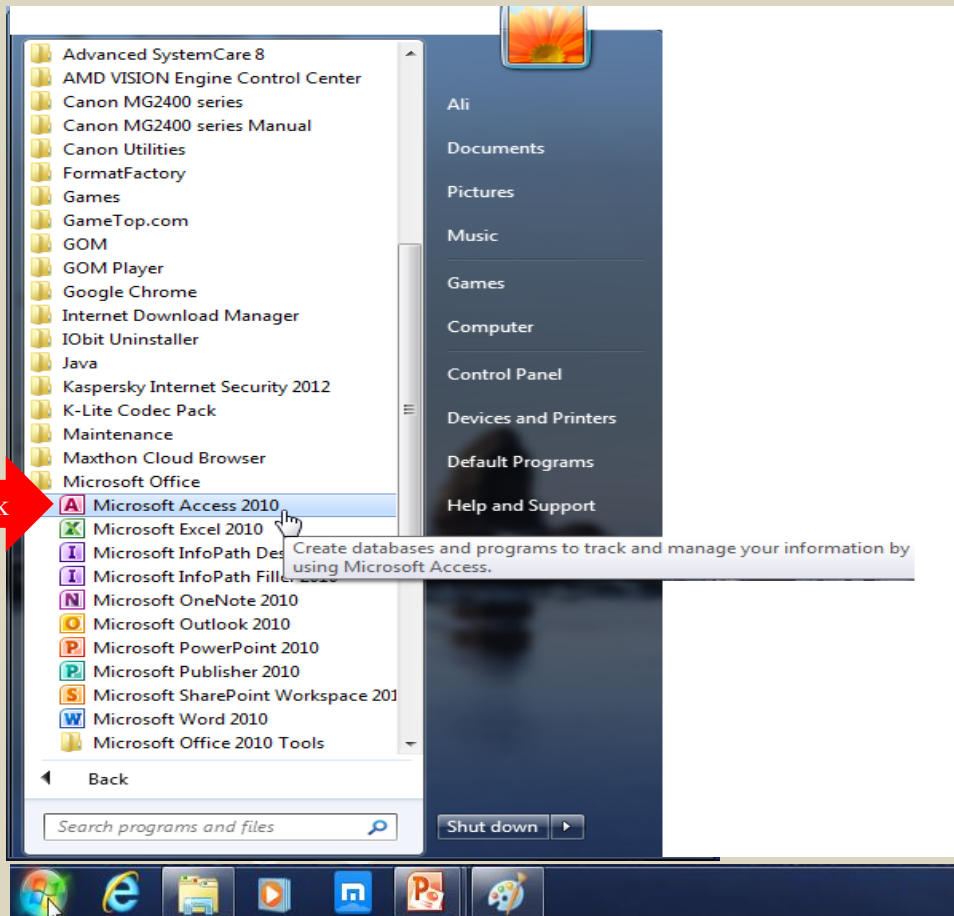
2 Click

1 Click

# How to Open Microsoft Access 2010

چونیهتی که رده وه بهرنامهی Access

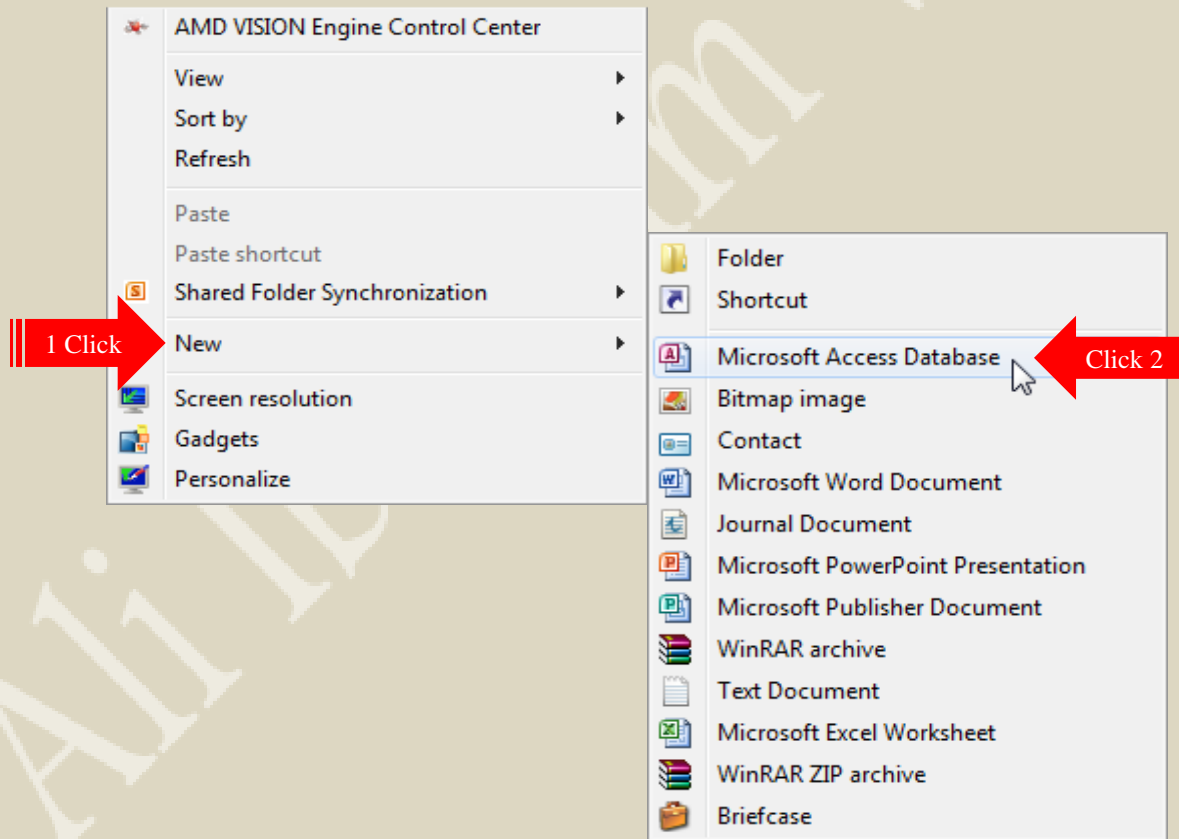
Start Click → All Programs Click → Microsoft Office Click → Access 2010



# How to Open Microsoft Access 2010

## چونیهتی کوردنه وه بهرنامهی Access

Right Click on (Desktop) **Click** → **New** **Click** → **Microsoft Access Database**





# How to create a database

## چۆنییه‌تی دروستکردنی database

**Available Templates**

Home

Blank database  
Blank web database  
Recent templates  
Sample templates  
My templates

Office.com Templates

Search Office.com for templates

Assets  
Contacts  
Issues & Tasks  
Non-profit  
Projects

**Blank database**

File Name  
Database1

C:\Users\Ali\Documents\

Create

Click

Type a name  
(Database Name)

# How to create the first table

## چونیه تی دروستکردنی یه که م خسته

The screenshot illustrates the process of creating a new table in Microsoft Access. The 'Table Tools' ribbon is active, showing the 'Fields' and 'Table' tabs. A 'Save As' dialog box is open, prompting for a 'Table Name'. The name 'students' is entered in the text box. A blue callout box with a white border and a pointer indicates that the user should 'Type a name (Table Name)'. Three red arrows with white text labels indicate the sequence of actions: 'Click 1' points to the 'Table' tab, 'Click 2' points to the 'Design View' button, and 'Click 3' points to the 'OK' button in the 'Save As' dialog. The background shows a grid representing the table structure with columns for 'ID' and '(New)'. The status bar at the bottom indicates 'Record: 1 of 1' and 'No Filter'.

Database1 : Database (Access 2007) - Microsoft Access

File Home Create External Data Database Tools Design

View Primary Key Builder Test Validation Rules Tools

Insert Rows Delete Rows Modify Lookups Property Indexes Sheet Show/Hide Create Data Macro Rename/Delete Macro Field, Record & Table Events Relationships Object Dependencies Relationships

All Access Objects Search... Tables students

Field Name	Data Type	Description
ID	AutoNumber	

Field Name <= 64  
ناوی ستون

Data Type  
جوړی زانیاری

Field Properties  
تایپه تمه ندیی فیله دهکان

Field Properties

General	
Field Size	Long Integer
New Values	Increment
Format	
Caption	
Indexed	Yes (No Duplicates)
Smart Tags	
Text Align	General

A field name can be up to 64 characters long, including spaces. Press F1 for help on field names.

Design view. F6 = Switch panes. F1 = Help. Num Lock

# Data Type

## جوړی زانیاری

Data type	Description	Example
Text	A Text field can store any character or number up to 255 characters.	Name
Number	A Number field can store numbers.	Age
Date/Time	A Date/Time field stores a date and a time.	Date of Birth
Currency	A Currency field stores currency values, numbers, and decimal-place formatting.	Salary
AutoNumber	An AutoNumber field stores serial or random numbers assigned by Access can't be updated.	ID Number
OLE Object	An OLE object field stores objects created by programs other than Access and linked to or embedded in an Access table.	Photo

# How to insert a new field

The screenshot shows the Microsoft Access interface with the 'students' table in Design view. The 'Field Name' column contains 'Name' and the 'Data Type' column contains 'Text'. A red arrow points to the 'Text' option in the dropdown menu, and a blue arrow points to the 'Name' field name. A blue callout box says 'Type the field name' and another says 'Select data type'.

Field Name	Data Type	Description
ID	AutoNumber	
Name	Text	

Field Properties

Property	Value
Field Size	255
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Allow Zero Length	Yes
Indexed	No
Unicode Compression	Yes
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	

The data type determines the kind of values that users can store in the field. Press F1 for help on data types.

# How to insert a new field

The screenshot shows the Microsoft Access 2007 interface in Design view for a table named 'students'. The table structure is as follows:

Field Name	Data Type	Description
ID	AutoNumber	
Name	Text	
Degree	Text	

The 'Degree' field's data type dropdown menu is open, showing the following options: Text, Memo, Number, Date/Time, Currency, AutoNumber, Yes/No, OLE Object, Hyperlink, Attachment, Calculated, and Lookup Wizard... The 'Number' option is selected. Red arrows labeled 'Click' point to the dropdown arrow and the 'Number' option. Blue callouts with numbers 1 and 2 point to the 'Degree' field name and the 'Number' data type respectively.

The 'Field Properties' pane at the bottom shows the following settings for the selected field:

Property	Value
Field Size	255
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Allow Zero Length	Yes
Indexed	No
Unicode Compression	Yes
IME Mode	No Control
IME Sentence Mode	None
Smart Tags	

The data type determines the kind of values that users can store in the field. Press F1 for help on data types.

# Data Entry

The screenshot shows the Microsoft Access interface with the following elements:

- Table Tools Design Ribbon:** Includes buttons for Insert Rows, Delete Rows, Modify Lookups, Property Sheet, Indexes, Show/Hide, Create Data Macros, Rename/Delete Macro, Relationships, and Object Dependencies.
- View Menu:** A dropdown menu is open, showing options: Datasheet View (highlighted), PivotTable View, PivotChart View, and Design View. A red arrow labeled "Click 1" points to the View button, and another red arrow labeled "Click 2" points to Datasheet View.
- Table Structure:** A table with columns: Field Name, Data Type, and Description. Rows include: ID (AutoNumber), Name (Text), and Degree (Number).
- Microsoft Access Dialog Box:** A modal dialog box with the message: "You must first save the table. Do you want to save the table now?". The "Yes" button is highlighted with a red dashed box and a red arrow labeled "Click 3".
- Field Properties:** A section at the bottom with tabs for General and Lookup. A note states: "A field name can be up to 64 characters long, including spaces. Press F1 for help on field names."
- Status Bar:** Displays "Design view. F6 = Switch panes. F1 = Help." and "Num Lock".

# Data Entry

Click

ID	Name	Degree	Click to Add
1	Ahmid	80	
2	Karwan	55	
3	Dana	73	
4	Sara	43	
*	New		

Enter data

Record: 1 of 1



**The End**