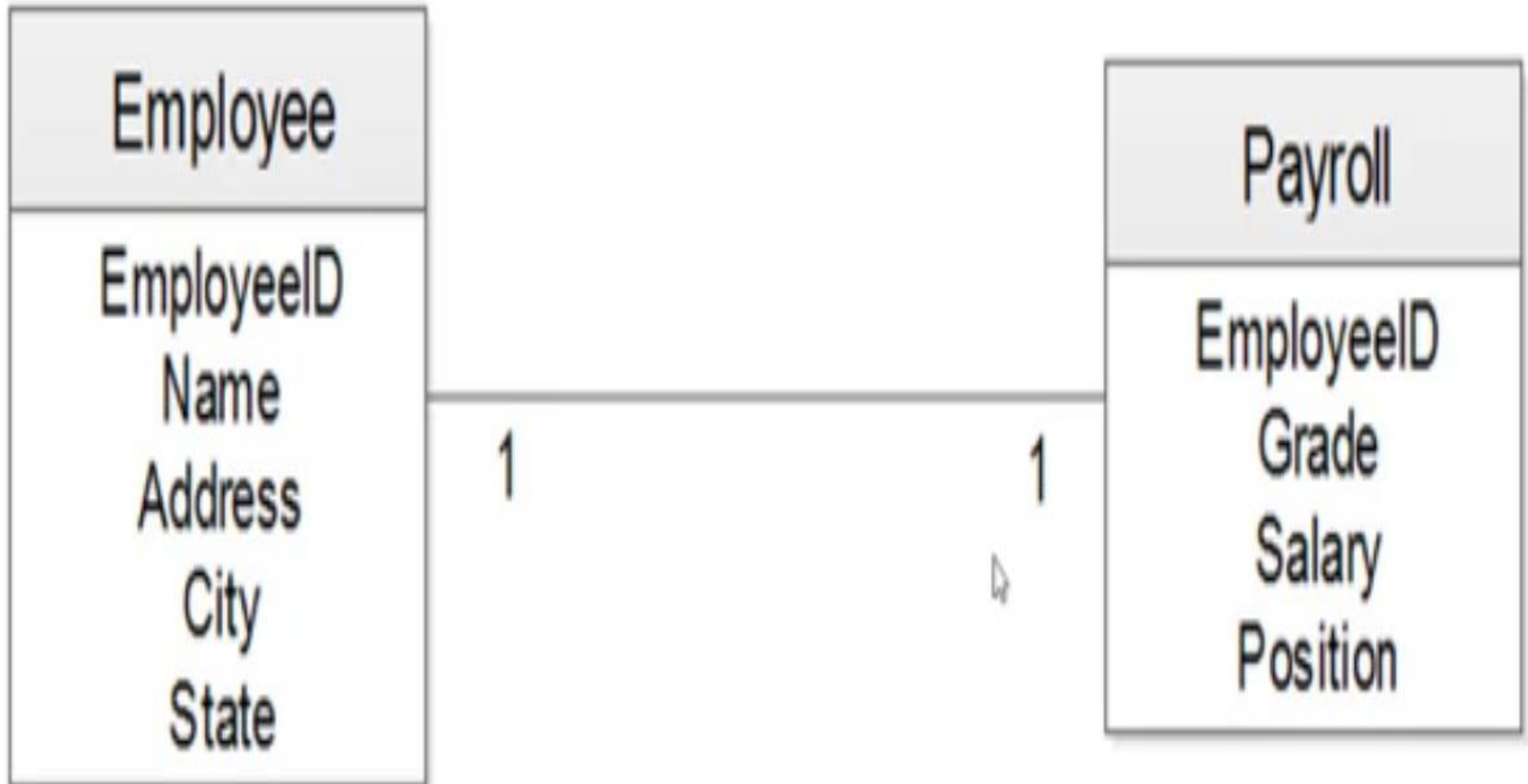


Lecture (3)

"Introduction to Data Base"

Presented by : Dr. Nehal El Azaly
Dr. Dina Abdel hafez

One-to-One Relationship



One-to-One Relationship

factory : Database- E:\BA UNI- Second Year Courses\Data Base- 2nd year\trials\Access DB\factory.accdb (Access 2007 - 2016 file format) - Access

File Home Create External Data Database Tools Design Tell me what you want to do...

Relationship Tools

Tools: Edit Relationships, Clear Layout, Relationship Report

Relationships: Hide Table, Direct Relationships, All Relationships, Close

All Access ... Search... Tables: cars, employee

Relationships

employee

- employee-ID
- address
- email
- tel

cars

- car-ID
- employee-id
- color
- expire date

Edit Relationships

Table/Query: employee Related Table/Query: cars

employee-ID employee-id

☐ Enforce Referential Integrity

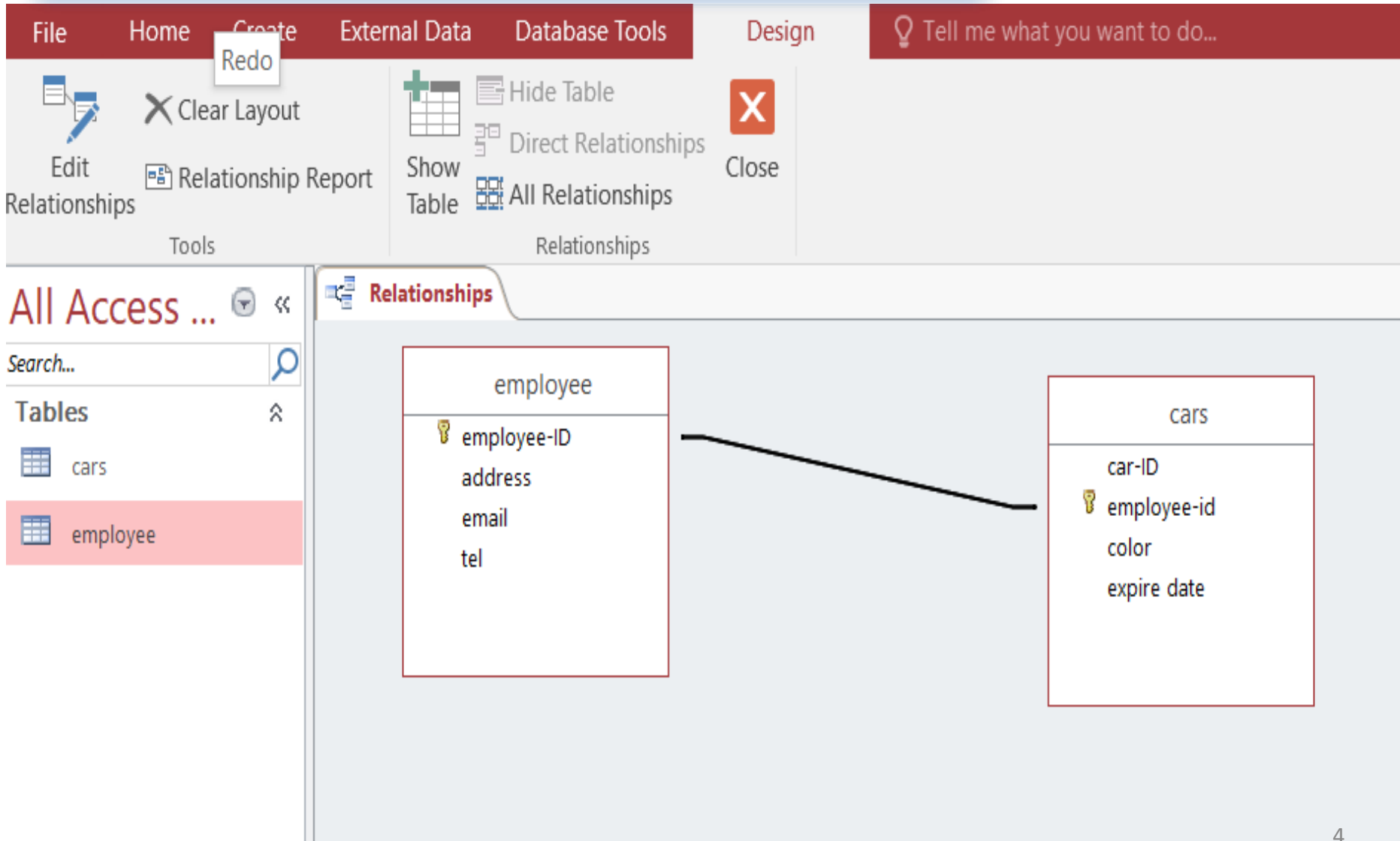
☐ Cascade Update Related Fields

☐ Cascade Delete Related Records

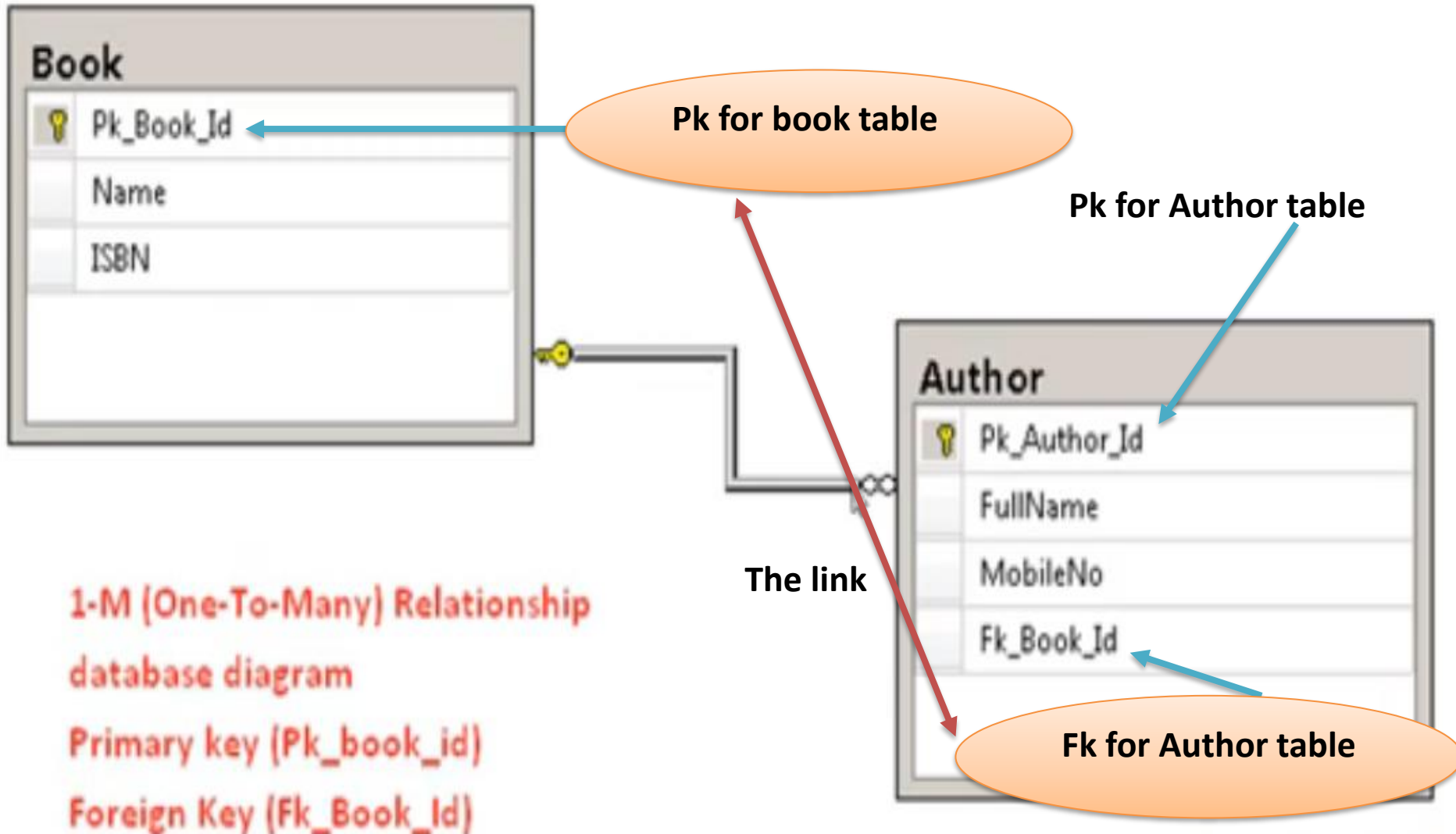
Relationship Type: One-To-One

Create Cancel Join Type.. Create New..

One-to-One Relationship



One-to-Many Relationship



Understanding One-to-Many Relationships

- one record in table can be associated with multiple records in another table.

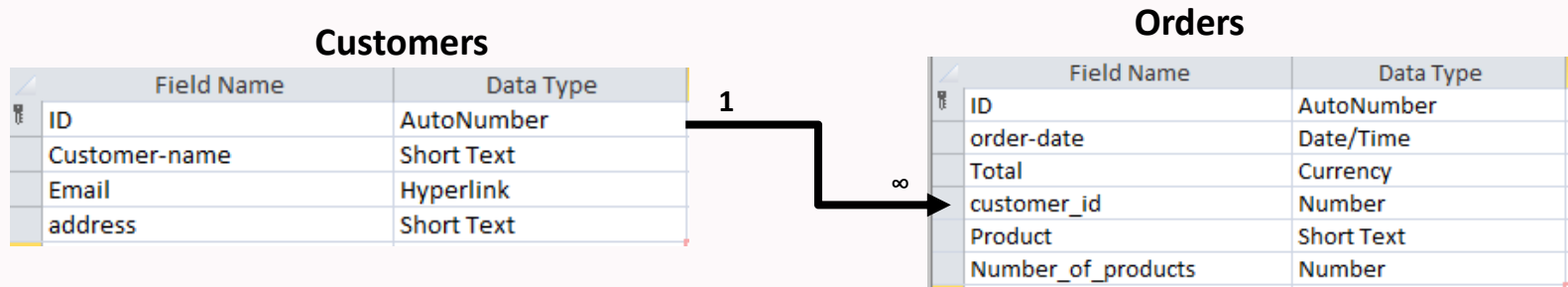
For example, one customer can have multiple orders.

يمكن ربط سجل واحد في جدول واحد بسجلات متعددة في جدول آخر.

على سبيل المثال، يمكن لعميل واحد أن يكون لديه طلبات متعددة.



Database Structure





Home



New



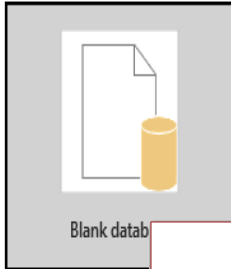
Open

Account

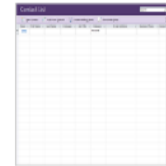
Feedback

Options

▼ New



Blank databa



Contacts



Search

Recent

Pinned



Name

Store.acc
DocumentsDatabase
DocumentsDatabase
DocumentsDatabase1.accdb
Documents

Blank database

File Name

EStore.accdb



C:\Users\RONATELO\Documents\



Create

Sun at 11:11 PM

More templates →

More databases →

File Home **Create** External Data Database Tools Help **Table Fields** Table Tell me what you want to do

Application Parts ▾ Table Table Design Lists ▾ Query Wizard Query Design Form Form Design Blank Form Navigation ▾ More Forms ▾ Report Report Design Blank Report Labels Macro Module Class Module Visual Basic

Templates Tables Queries Forms Reports Macros & Code

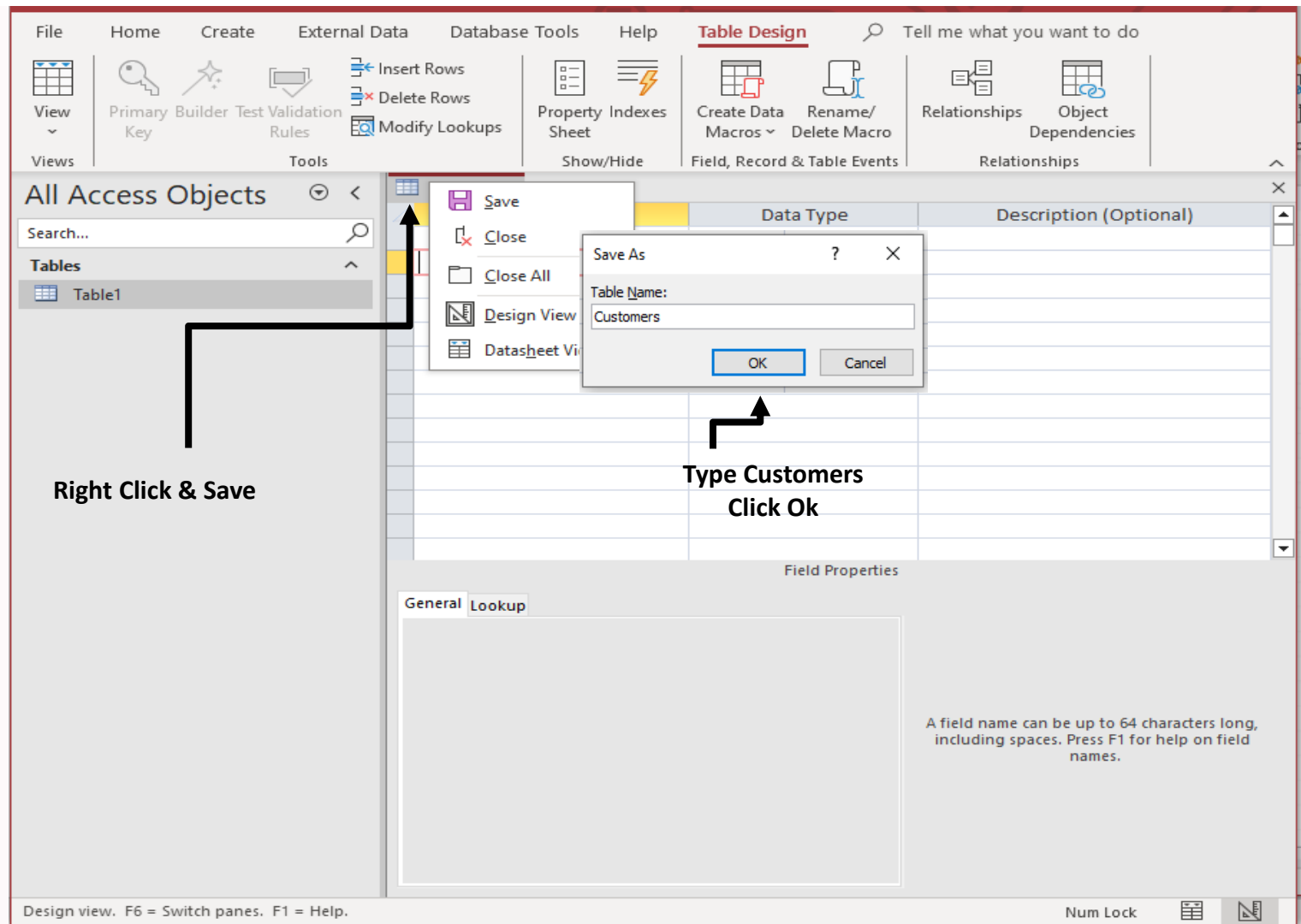
All Access Objects ▾ < Search... Tables Table1

Table1 x ID Click to Add (New)

Record: 1 of 1 No Filter Search Num Lock

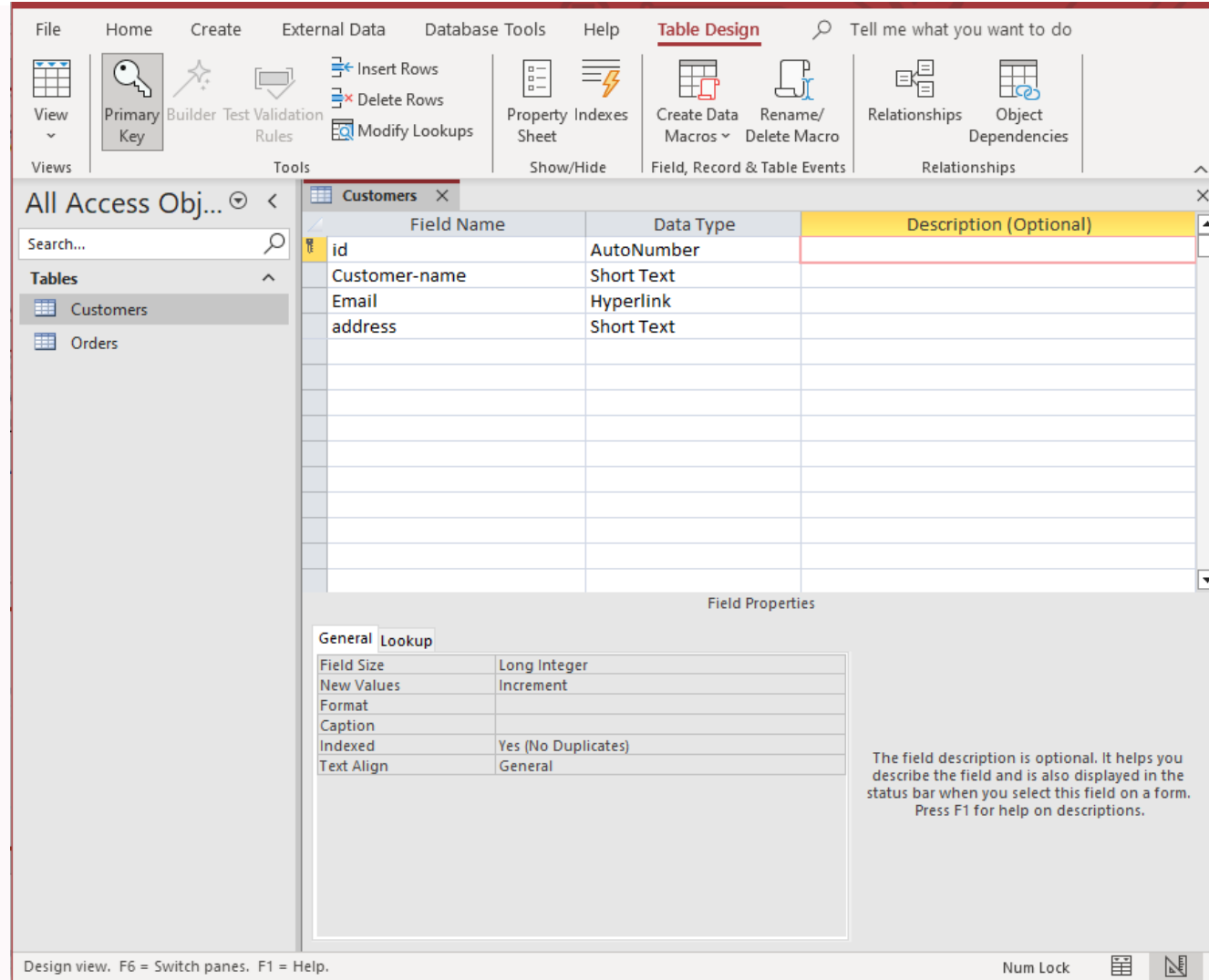
Datasheet View

Click in Table Design



	Field Name	Data Type
	ID	AutoNumber
	Customer-name	Short Text
	Email	Hyperlink
	address	Short Text

warning:
Don't forget to add a
primary key
To customer id field



File Home Create External Data Database Tools Help **Table Fields** Table Tell me what you want to do

Views Add & Delete Properties Formatting Field Validation

All Access Objects

Search...

Tables

- Customers
- Table1**

Table1

ID Click to Add

(New)

Save As

Table Name:

Orders

OK Cancel

Right Click & Save

Type Orders & click Ok

Record: 14 No Filter Search

Datasheet View

Num Lock

Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_products	Number

To Get data from another Table Select Lockup wizard

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

Field Name	Data Type	Description (Optional)
ID	AutoNumber	
order-date	Date/Time	
Total	Currency	
customer_id	Number	
	Short Text	
	Long Text	
	Number	
	Large Number	
	Date/Time	
	Date/Time Extended	
	Currency	
	AutoNumber	
	Yes/No	
	OLE Object	
	Hyperlink	
	Attachment	
	Calculated	
	LookUp Wizard...	

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

Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_products	Number

Select First Option

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

Num Lock

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

Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_products	Number

Select Table to make the relation with

File Home Create External Data Database Tools Help **Table Design** Tell me what you want to do

View Primary Key Builder Test Validation Rules Insert Rows Delete Rows Modify Lookups Property Sheet Indexes Show/Hide Create Data Macros Rename/Delete Macro Relationships Object Dependencies

Views Tools Field, Record & Table Events Relationships

All Access Obj... < Orders X

Search...

Tables

- Customers
- Orders

Field Name	Data Type	Description (Optional)
ID	AutoNumber	
order-date	Date/Time	
Total	Currency	
customer_id	Number	
Product	Short Text	
Number_of_orders	Long Text	

Lookup Wizard

Which table or query should provide the values for your lookup field?

Table: Customers
Table: Orders

View

☒ Tables ☐ Queries ☐ Both

Cancel < Back Next > Finish

Validation Text

Required	No
Indexed	Yes (Duplicates OK)
Text Align	General

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

Num Lock

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

Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_products	Number

Click on the field
That you will get your values
from
In this case, it's id

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

Num Lock

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

Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_products	Number

Then, Click Next

Lookup Wizard

Which fields of Customers contain the values you want included in your lookup field? The fields you select become columns in your lookup field.

Available Fields:

- Customer-name
- Email
- address

Selected Fields:

- id

Buttons: Cancel, < Back, Next >, Finish

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

Num Lock

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

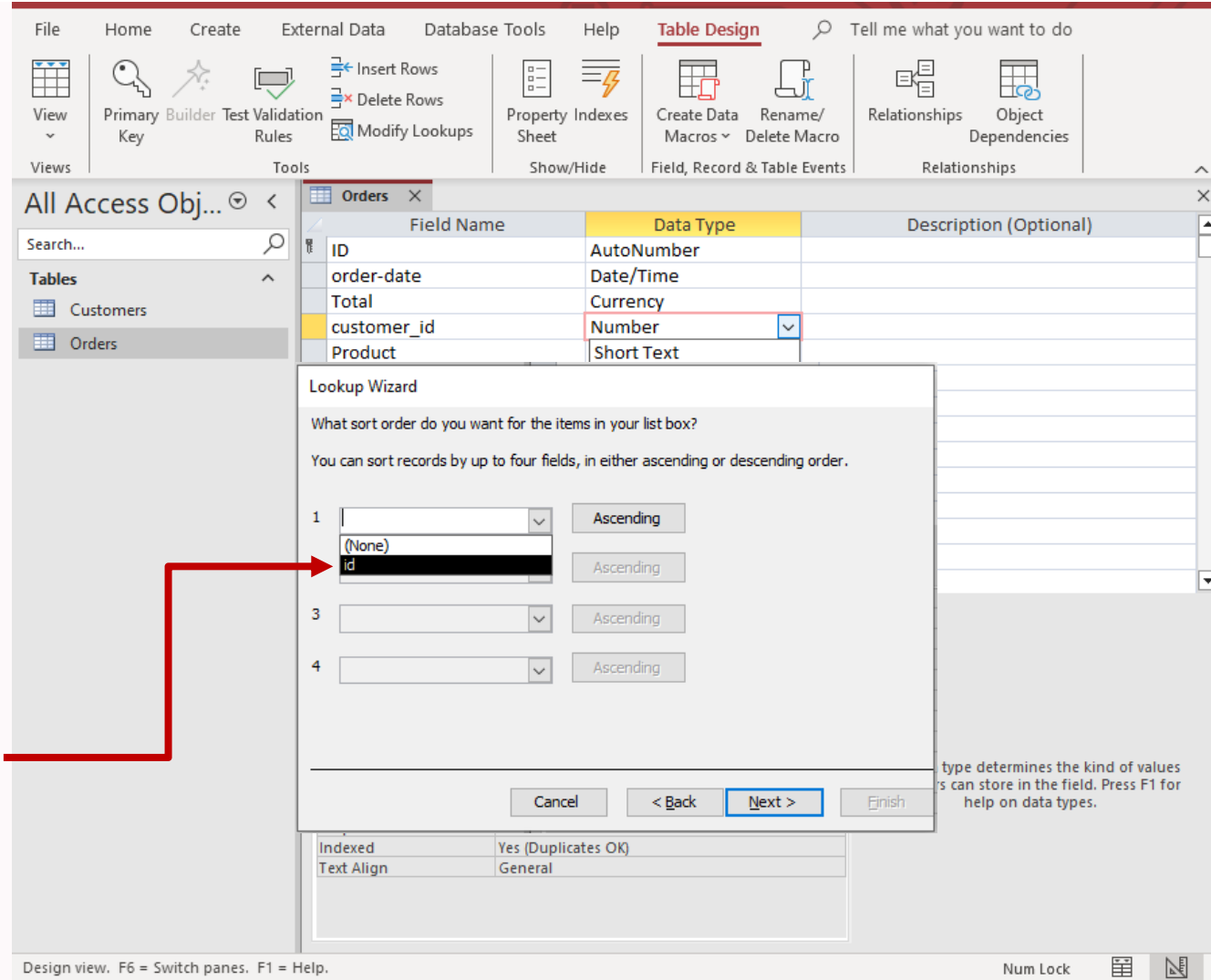
Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_products	Number

**Click on
the arrow**

Select id

Then Next



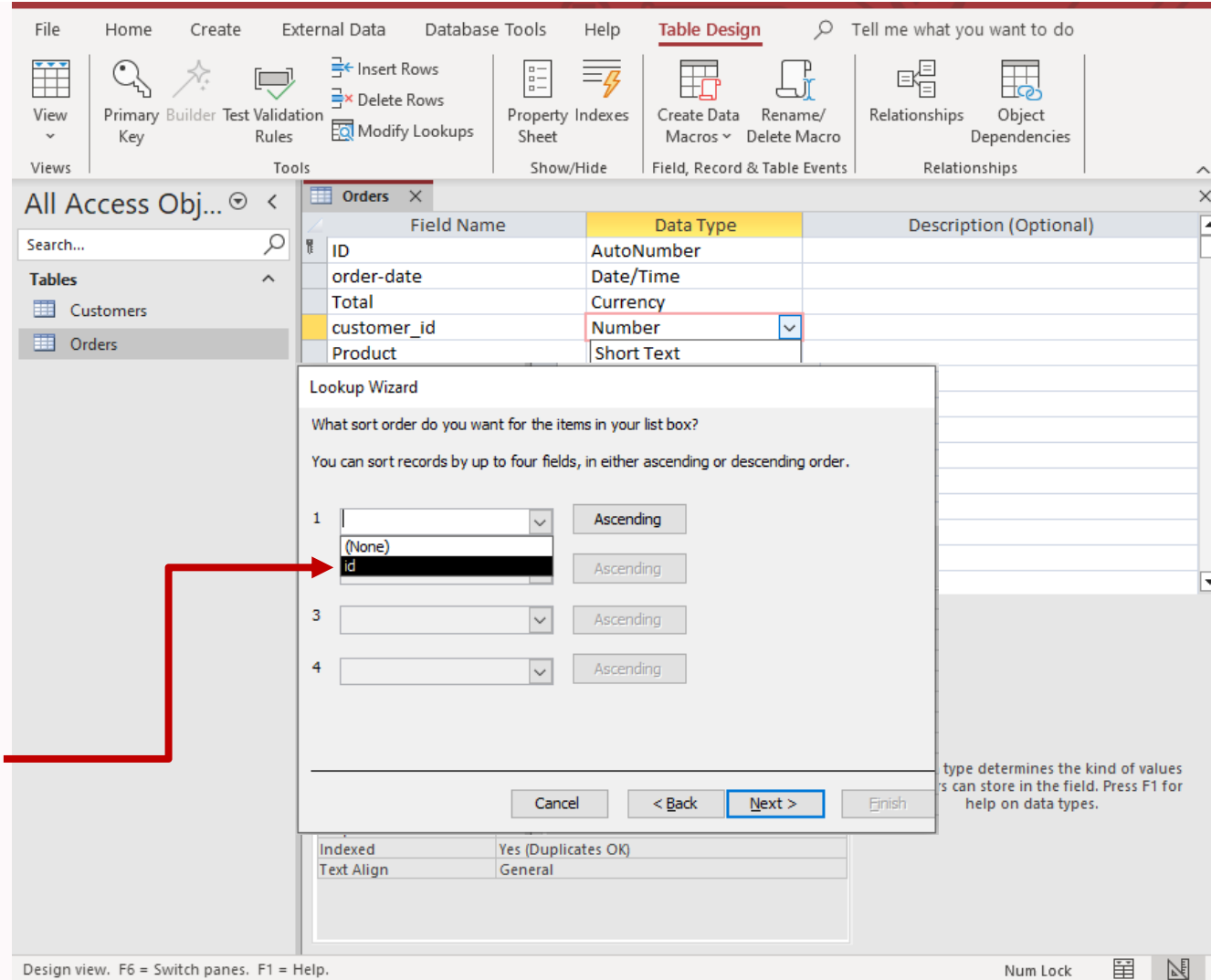
Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_products	Number

Click on the
arrow

Select id

Then Next & Next



The screenshot shows the Microsoft Access interface with the 'Table Design' ribbon active. The 'Orders' table is in design view. The 'customer_id' field is selected, and the 'Lookup Wizard' dialog is open. A red arrow points from the 'id' field in the table structure to the 'id' option in the 'Lookup Wizard' list box. The 'Next >' button is highlighted in the wizard.

Table Design View: Orders

Field Name	Data Type	Description (Optional)
ID	AutoNumber	
order-date	Date/Time	
Total	Currency	
customer_id	Number	
Product	Short Text	

Lookup Wizard

What sort order do you want for the items in your list box?

You can sort records by up to four fields, in either ascending or descending order.

1	(None)	Ascending
2	id	Ascending
3		Ascending
4		Ascending

Buttons: Cancel, < Back, **Next >**, Finish

Indexed: Yes (Duplicates OK)
Text Align: General

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

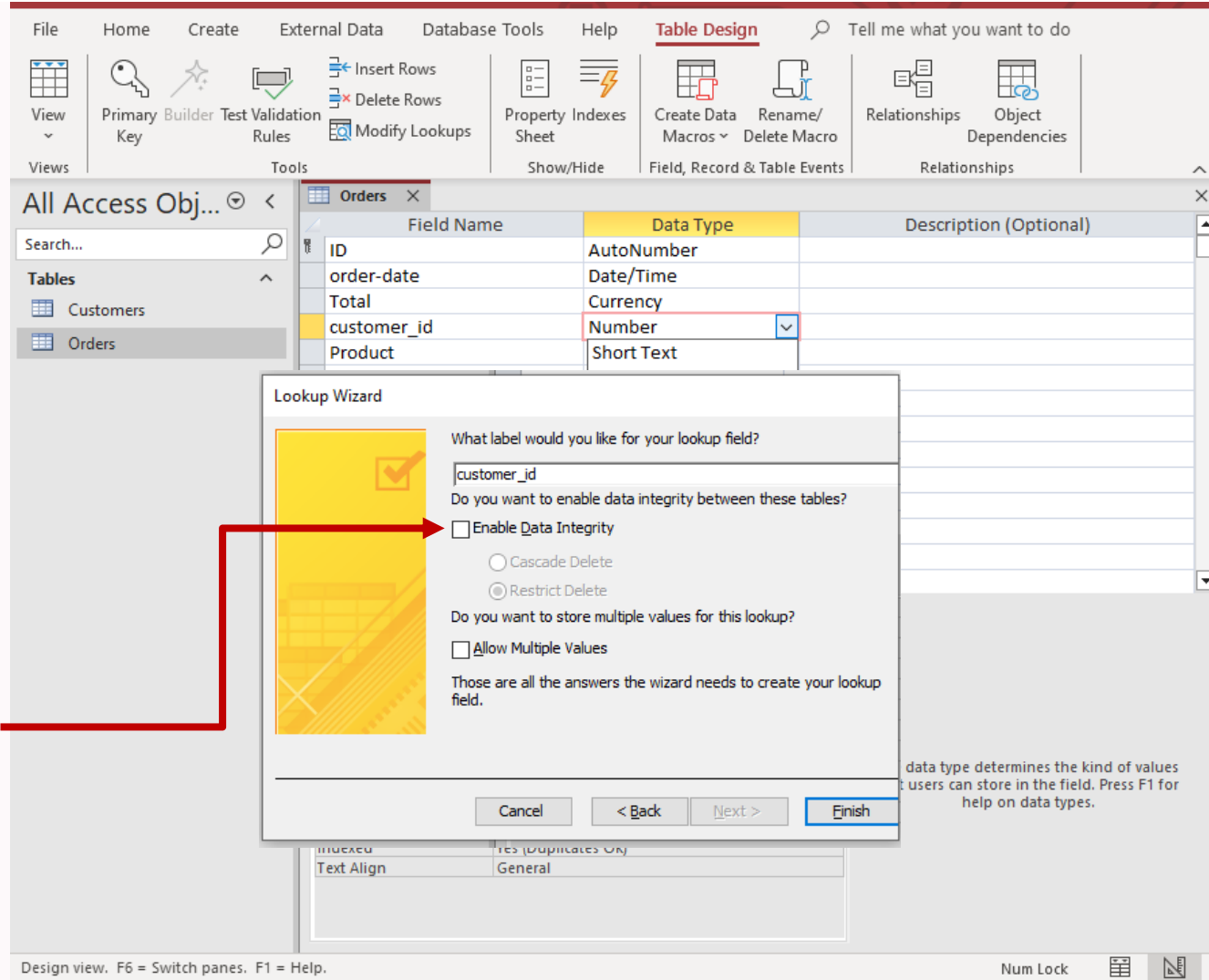
type determines the kind of values
s can store in the field. Press F1 for
help on data types.

Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_products	Number

Enable Data Integrity

And Click on Finish



Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_products	Number

Click
Yes

File Home Create External Data Database Tools Help **Table Design** Tell me what you want to do

Views Primary Key Builder Test Validation Rules Insert Rows Delete Rows Modify Lookups Property Sheet Indexes Show/Hide Create Data Macros Rename/Delete Macro Relationships Object Dependencies

All Access Obj... < Orders x

Field Name	Data Type	Description (Optional)
ID	AutoNumber	
order-date	Date/Time	
Total	Currency	

Tables: Customers, Orders

Lookup Wizard

What label would you like for your lookup field?
customer_id

Do you want to enable data integrity between these tables?
☒ Enable Data Integrity
☐ Cascade Delete
☒ Restrict Delete

you want to store multiple values for this lookup?
☐ Allow Multiple Values

These are all the answers the wizard needs to create your lookup field.

Cancel < Back Next > Finish

Lookup Wizard

! The table must be saved before relationships can be created. Save now?

Yes No

Validation Text: No
Required: Yes (Duplicates OK)
Indexed: Yes (Duplicates OK)
Text Align: General

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

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

Fill Orders Table with the given Structure

Field Name	Data Type
ID	AutoNumber
order-date	Date/Time
Total	Currency
customer_id	Number
Product	Short Text
Number_of_orders	Number

Complete adding the rest of fields

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

Num Lock

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

Store : Database- C:\Users\DONATELO\Documents\Store.accdb... شريف حمدي محمد السيد عبداللاه

File Home Create External Data Database Tools Help Table Design Tell me what you want to do

Compact and Repair Database Visual Basic Run Macro Relationships Object Dependencies Database Documenter Analyze Performance Analyze Table Access Database SharePoint Add-ins

Tools Macro Relationships Analyze Move Data Add-ins

All Access Obj... Search...

Tables Customers orders

orders Customers

Field Name	Data Type	Description (Optional)
order-date	Date/Time	
Total	Currency	
customer_id	Number	
Product	Short Text	

Field Properties

General Lookup

Field Size	Long Integer
Format	
Decimal Places	Auto
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	No
Indexed	No
Text Align	General

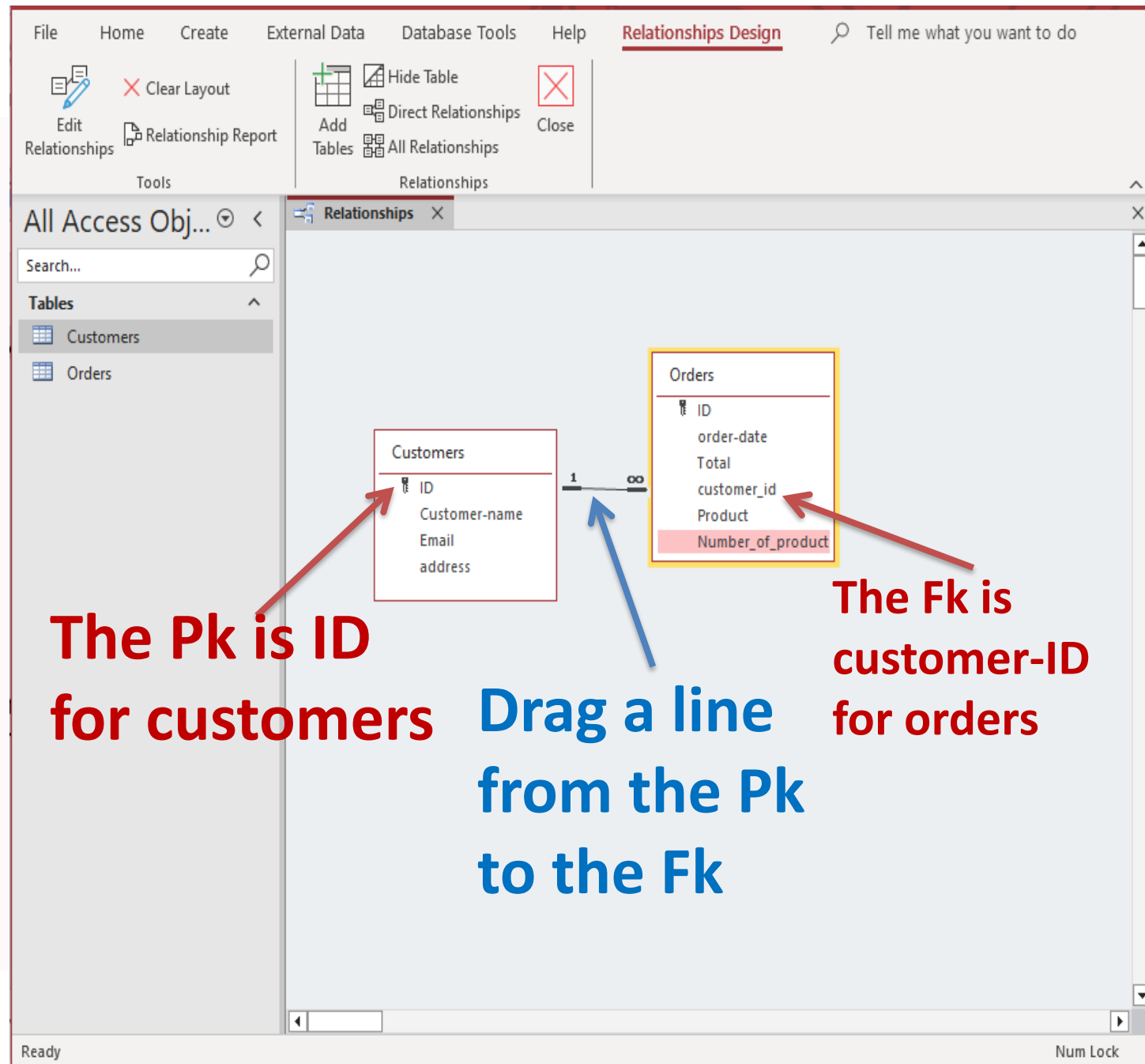
The data type determines the kind of values that users can store in the field. Press F1 for help on data types.

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

Num Lock

Click in Relationships

You have created one to many relationship successfully



*Thank
you*

