

Microsoft Access interface showing a table named 'first' in Datasheet View. The table contains student records with columns: stuid, stuname, major, num\_crs, and gpa. The first record (stuid: 1111, stuname: John Doe) is highlighted. Handwritten blue annotations identify 'stuid' as a 'foreign key' and 'major' as a 'major table' (primary key). The 'num\_crs' column is labeled 'credits'.

stuid	stuname	major	num_crs	gpa
1111	John Doe	CI	22	3.7
2222	Susan Ash	CI	12	4
3333	Jane Smith	BU	23	2.8
4444	David Costa	CI	12	3
5555	Linda Brown	CI	20	2.9
6666	Carl Souza	BU	14	3.2
7777	Ann Jones	CI	23	2
*			0	0

Handwritten annotations:

- foreign key (pointing to stuid)
- major table (pointing to major)
- major key (pointing to major)
- credits (pointing to num\_crs)

Microsoft Access - First11F13 : Database- G:\First11F13.accdb (Access 2007 - 2013 file format) - Access

FILE HOME CREATE EXTERNAL DATA DATABASE TOOLS DESIGN

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

Views Tools Show/Hide Field, Record & Table Events Relationships

### All Access Objects

Search...

**Tables**

- first

**Queries**

- 2or2
- ANDeitherOR
- basic
- Clmajors
- majorandgpa
- onehastobetrue
- ORquestion
- SQLand
- SQLCI
- SQLeverything
- SQLproblem
- whatever

Field Name	Data Type	Description (Optional)
stuid	Short Text	
stuname	Short Text	
major	Short Text	
num_crs	Number	
gpa	Number	

Field Properties

General Lookup

Field Size	4
Format	
Input Mask	
Caption	
Default Value	
Validation Rule	
Validation Text	
Required	Yes
Allow Zero Length	Yes
Indexed	Yes (No Duplicates)
Unicode Compression	No
IME Mode	No Control
IME Sentence Mode	None
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

Microsoft Access 2013 interface showing the design view of a table named 'Table1'.

**TABLE TOOLS DESIGN**

Views: 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, Relationships.

**All Access Objects**

- Tables: first
- Queries: 2or2, ANDeitherOR, basic, Cmajors, majorandgpa, onehastobetrue, ORquestion, SQLand, SQLCI, SQLeverything, SQLproblem, whatever

Field Name	Data Type	Description (Optional)
major	Short Text	Creating a second table.

**Field Properties**

Property	Value
Field Size	4
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
Text Align	General

The maximum number of characters you can enter in the field. The largest maximum you can set is 255. Press F1 for help on field size.

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

NUM LOCK 11:14 AM 11/26/2013

Microsoft Access window: First11F13 : Database- G:\First11F13.accdb (Access 2007 - 2013 file format) - Access

Menu: FILE | HOME | CREATE | EXTERNAL DATA | DATABASE TOOLS | TABLE TOOLS (FIELD, TABLE)

Views: View, Paste, Copy, Format Painter

Clipboard: Cut, Copy, Format Painter

Sort & Filter: Filter, Ascending, Descending, Selection, Advanced, Remove Sort, Toggle Filter

Records: Refresh All, New, Save, Delete, More, Totals, Spelling

Find: Find, Replace, Go To, Select

Text Formatting: Calibri (Detail), 11, Bold, Italic, Underline, Text Color, Background Color, Bullets, Numbering, Indentation, Paragraph Spacing, Table, Grid

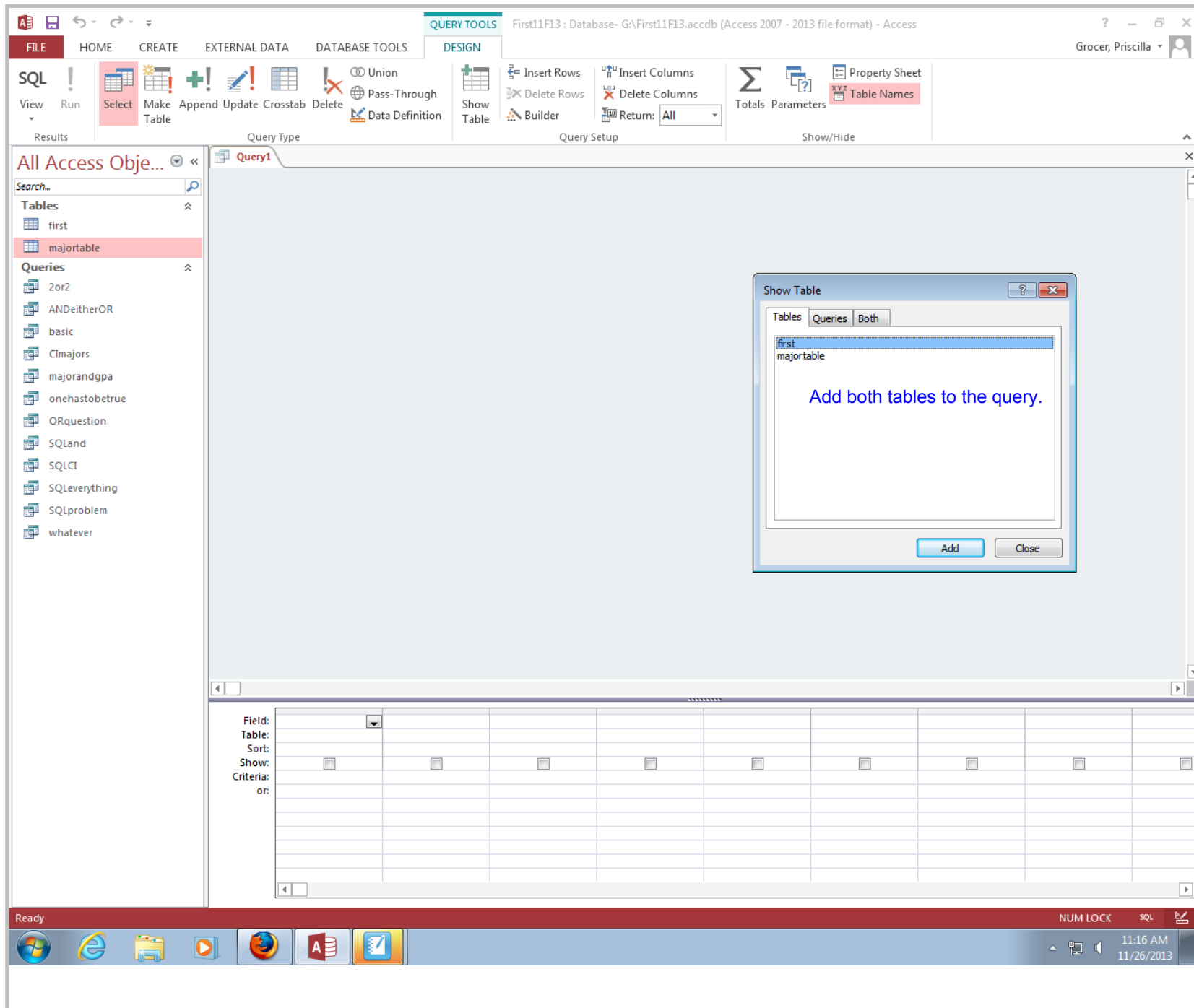
Navigation: All Access Objects, Search, Tables (first, majortable), Queries (2or2, ANDeitherOR, basic, CImajors, majorandgpa, onehastobetrue, ORquestion, SQLand, SQLCI, SQLeverything, SQLproblem, whatever)

major	majorname	credits	Click to Add
CI	Computer Info	65	
BU	Business	65	
*		0	

Datasheet View | Record: 2 of 2 | No Filter | Search

Taskbar: Windows Explorer, Internet Explorer, Media Center, Firefox, Microsoft Access, Microsoft Word

System Tray: NUM LOCK, 11:16 AM, 11/26/2013



Microsoft Access window: First11F13 : Database- G:\First11F13.accdb (Access 2007 - 2013 file format) - Access

QUERY TOOLS: DESIGN

Relationship Diagram showing:

- Table **first** (Primary Key: **stuid**):
  - Columns: stuid, stuname, major, num\_crs, gpa
- Table **majortable** (Primary Key: **major**):
  - Columns: major, majorname, credits
- Relationship: A line connects the **major** field in the **first** table to the **major** field in the **majortable** table.

The line links the tables based on the major. The major is the foreign key on the first table and links to the primary key of major on majortable. The definition of a foreign key is the link to the primary key on another table.

Field:	stuid	stuname	major	major	majorname				
Table:	first	first	first	majortable	majortable				
Sort:									
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:			"C"						
or:									

Smartboard put in this block...

Taskbar: Ready, NUM LOCK, 11:19 AM 11/26/2013

Microsoft Access 2013 interface showing a database named "First11F13 : Database- G:\First11F13.accdb (Access 2007 - 2013 file format) - Access". The ribbon includes FILE, HOME, CREATE, EXTERNAL DATA, and DATABASE TOOLS. The main window displays a query named "Query1" with the following data:

stuid	stuname	first.major	majortable.major	majorname
1111	John Doe	CI	CI	Computer Information Systems
2222	Susan Ash	CI	CI	Computer Information Systems
4444	David Costa	CI	CI	Computer Information Systems
5555	Linda Brown	CI	CI	Computer Information Systems
7777	Ann Jones	CI	CI	Computer Information Systems
*				

The status bar at the bottom indicates "Record: 1 of 5" and "No Filter". The Windows taskbar at the bottom shows the system tray with the time "11:21 AM" and date "11/26/2013".

Microsoft Access window: First11F13 : Database- G:\First11F13.accdb (Access 2007 - 2013 file format) - Access

USER: Grocer, Priscilla

QUERY TOOLS: DESIGN

FUNCTIONS: View, Run, Select, Make Table, Append, Update, Crosstab, Delete, Union, Pass-Through, Data Definition, Show Table, Builder, Insert Rows, Delete Rows, Insert Columns, Delete Columns, Return: All, Totals, Parameters, Property Sheet, Table Names

Navigation: Results, Query Type, Query Setup, Show/Hide

Left Panel: All Access Objects

- Tables: first, majortable
- Queries: 2or2, ANDeithOR, basic, CImajors, linkmajor, majorandgpa, onehastobetrue, ORquestion, SQLand, SQLCI, SQLeverything, SQLproblem, whatever

Query Design View: Query1

Tables: first (fields: \*stuid, \*stuname, major, num\_crs, gpa) and majortable (fields: \*major, majordname, credits). Relationship line connects stuid in 'first' to major in 'majortable'.

Field:	stuid	stuname	major	num_crs	majordname	credits			
Table:	first	first	first	first	majortable	majortable			
Sort:									
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:									
or:									

Taskbar: Ready, NUM LOCK, 11:22 AM, 11/26/2013



First11F13 : Database- G:\First11F13.accdb (Access 2007 - 2013 file format) - Access

FILE HOME CREATE EXTERNAL DATA DATABASE TOOLS Grocer, Priscilla

View Paste Copy Cut Copy Paste Format Painter Filter Sort & Filter Records Find Text Formatting

Ascending Descending Remove Sort Toggle Filter Refresh Save Delete More Find Replace Go To Select

Calibri 11 B I U

All Access Objects

Search...

Tables

- first
- majorable

Queries

- 2or2
- ANDeitherOR
- basic
- Clmajors
- linkmajor
- majorandgpa
- onehastobetrue
- ORquestion
- SQLand
- SQLCI
- SQLeverything
- SQLproblem
- whatever

Query1

stuid	stuname	major	num_crs	majorname	credits
1111	John Doe	CI	22	Computer Info	65
2222	Susan Ash	CI	12	Computer Info	65
3333	Jane Smith	BU	23	Business	65
4444	David Costa	CI	12	Computer Info	65
5555	Linda Brown	CI	20	Computer Info	65
6666	Carl Souza	BU	14	Business	65
7777	Ann Jones	CI	23	Computer Info	65
*					

Record: 1 of 7 No Filter Search

Ready NUM LOCK SQL 11:23 AM 11/26/2013

Microsoft Access - Query Design View

QUERY TOOLS: DESIGN

Tables: first, majortable

Queries: 2or2, ANDeitherOR, basic, CImajors, linkmajor, majorandgpa, onehastobetrue, ORquestion, SQLand, SQLCI, SQLeverything, SQLproblem, whatever

Query1 Design View:

- Table: first (fields: stuid, stuname, major, num\_crs, gpa)
- Table: majortable (fields: major, majorname, credits)
- Relationship: Line connecting stuid in 'first' to major in 'majortable'

Can write queries in the same way you did for single table queries.

The link means that it links the tables and responds with matching - it is like saying `first.major = majortable.major`. Without the link you would see every possible combination.

Field:	stuid	stuname	major	num_crs	majorname	credits			
Table:	first	first	first	first	majortable	majortable			
Sort:									
Show:	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Criteria:				>15					
or:									

Ready

NUM LOCK SQL

11:23 AM 11/26/2013

First11F13 : Database- G:\First11F13.accdb (Access 2007 - 2013 file format) - Access

FILE HOME CREATE EXTERNAL DATA DATABASE TOOLS

View Paste Copy Format Painter Filter Sort & Filter Records Find Text Formatting

Calibri 11

Search...

**Tables**

- first
- majortable

**Queries**

- 2or2
- ANDeitherOR
- basic
- Clmajors
- linkmajor
- majorandgpa
- onehastobetrue
- ORquestion
- SQLand
- SQLCI
- SQLeverything
- SQLproblem
- whatever

**Query1**

stuid	stuname	major	num_crs	majorname	credits
1111	John Doe	CI	22	Computer Info	65
3333	Jane Smith	BU	23	Business	65
5555	Linda Brown	CI	20	Computer Info	65
7777	Ann Jones	CI	23	Computer Info	65

Record: 1 of 4

NUM LOCK

11:24 AM 11/26/2013