

Bases de datos en Android

SQLite

Ing. Juan Vera Castillo

SQLite

SQLite es un sistema de gestión de bases de datos relacional que implementa :

Transacciones serializables que son atómicas, consistentes, independientes y durables (ACID), y está contenida en una pequeña (~275 kb) librería en C.

SQLite

A diferencia de los SGBD cliente-servidor convencionales, el motor de SQLite :

No es una aplicación aparte con el que se comunica el programa Java Android.

En realidad la biblioteca SQLite se fusiona y se convierte en una parte integral de la aplicación Java Android que usted construye.

SQLite

Es una base de datos transaccional que ocupa una porción pequeña de datos en memoria, por esto mismo es perfecto para dispositivos móviles.

SQLite es un proyecto de dominio público creado por D. Richard Hipp.

Descargar el SQLite de la web

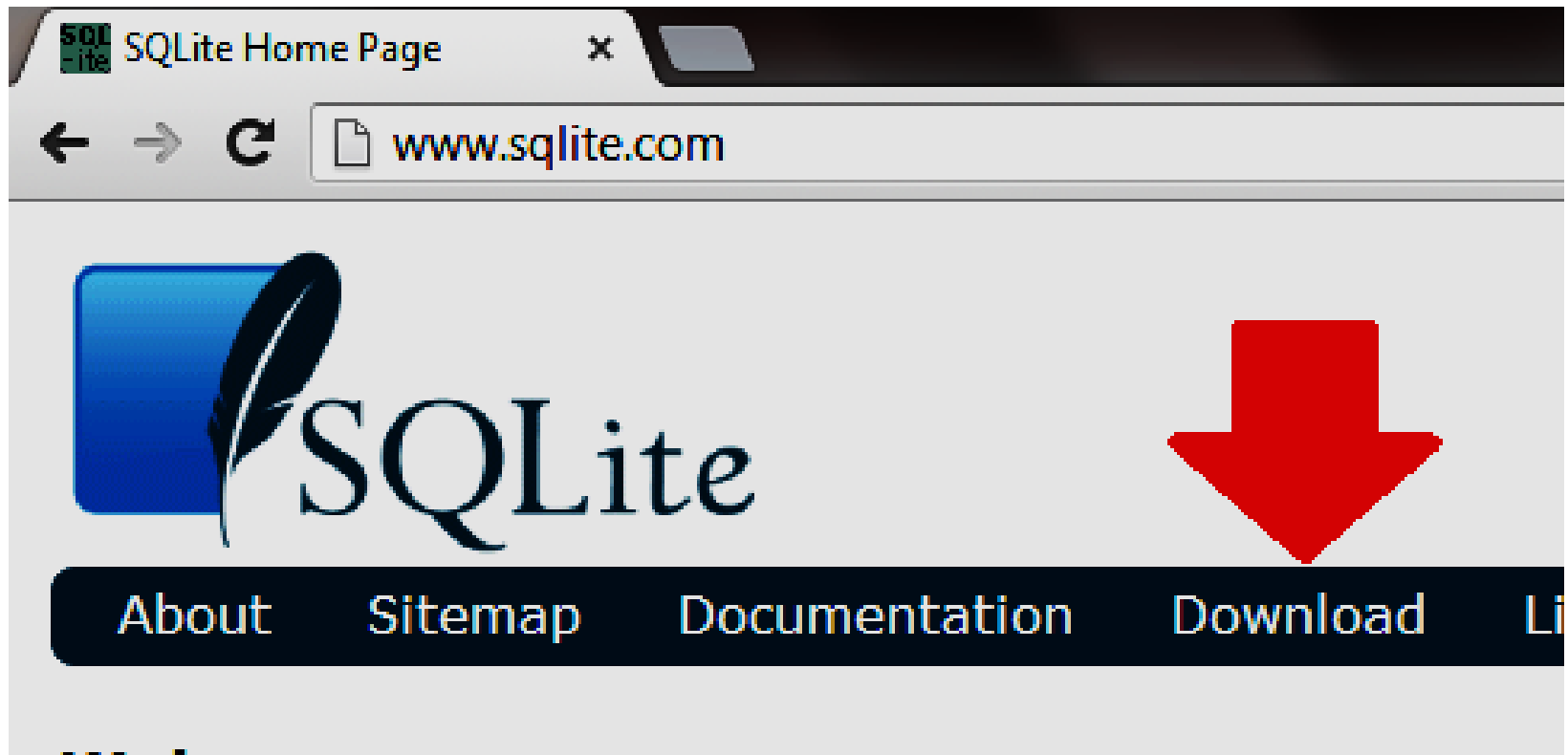
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Para descargar el Sqlite primeramente se tiene que ir a la siguiente dirección electrónica



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A continuación seleccionamos el menú **Download**



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Según nuestro sistema , seleccionaremos la versión adecuada. Nosotros vamos a descargar una versión para Windows tal como se aprecia en la siguiente figura :

Precompiled Binaries for Mac OS X (x86)

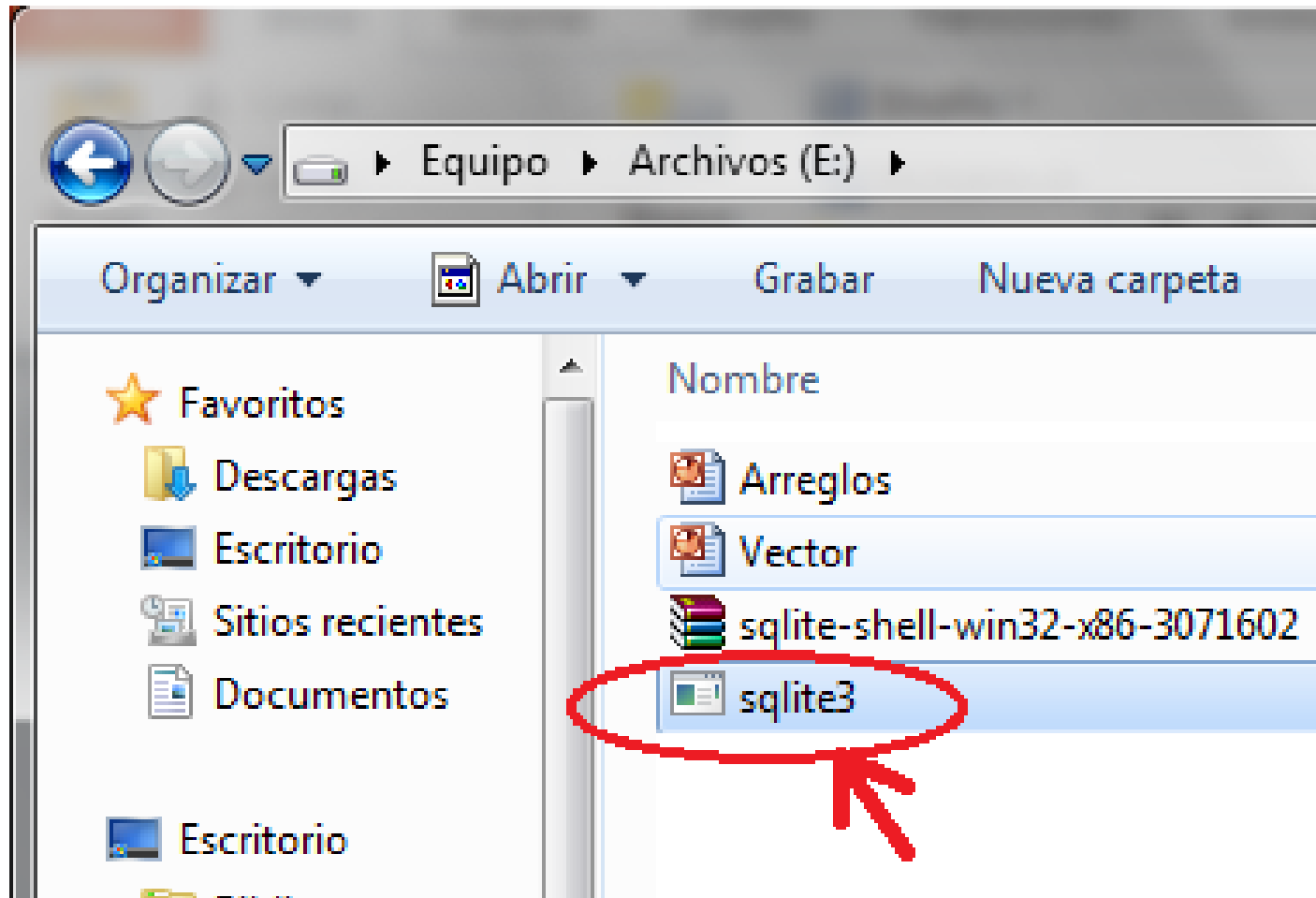
sqlite-shell-osx-x86-3071502.zip (330.20 KiB)	A command-line shell for accessing and modifying 3.7.15.2 and beyond. (sha1: e4ef32bbdb2a16a816dd5765049941105392)
sqlite-analyzer-osx-x86-3071502.zip (275.30 KiB)	An analysis program for database files. (sha1: dad8d9cbad8687587b5)

Precompiled Binaries for Windows

sqlite-shell-win32-x86-3071502.zip (266.31 KiB)	A command-line shell for accessing and modifying 3.7.15.2 and beyond. (sha1: 827934d166a905a35c0)
sqlite-dll-win32-x86-3071502.zip (301.26 KiB)	This ZIP archive contains a DLL for the SQLite library built using SQLITE_ENABLE_COLUMN_METADATA s. (sha1: 34c50475573bf3025048a2c35bdb0b301c801)

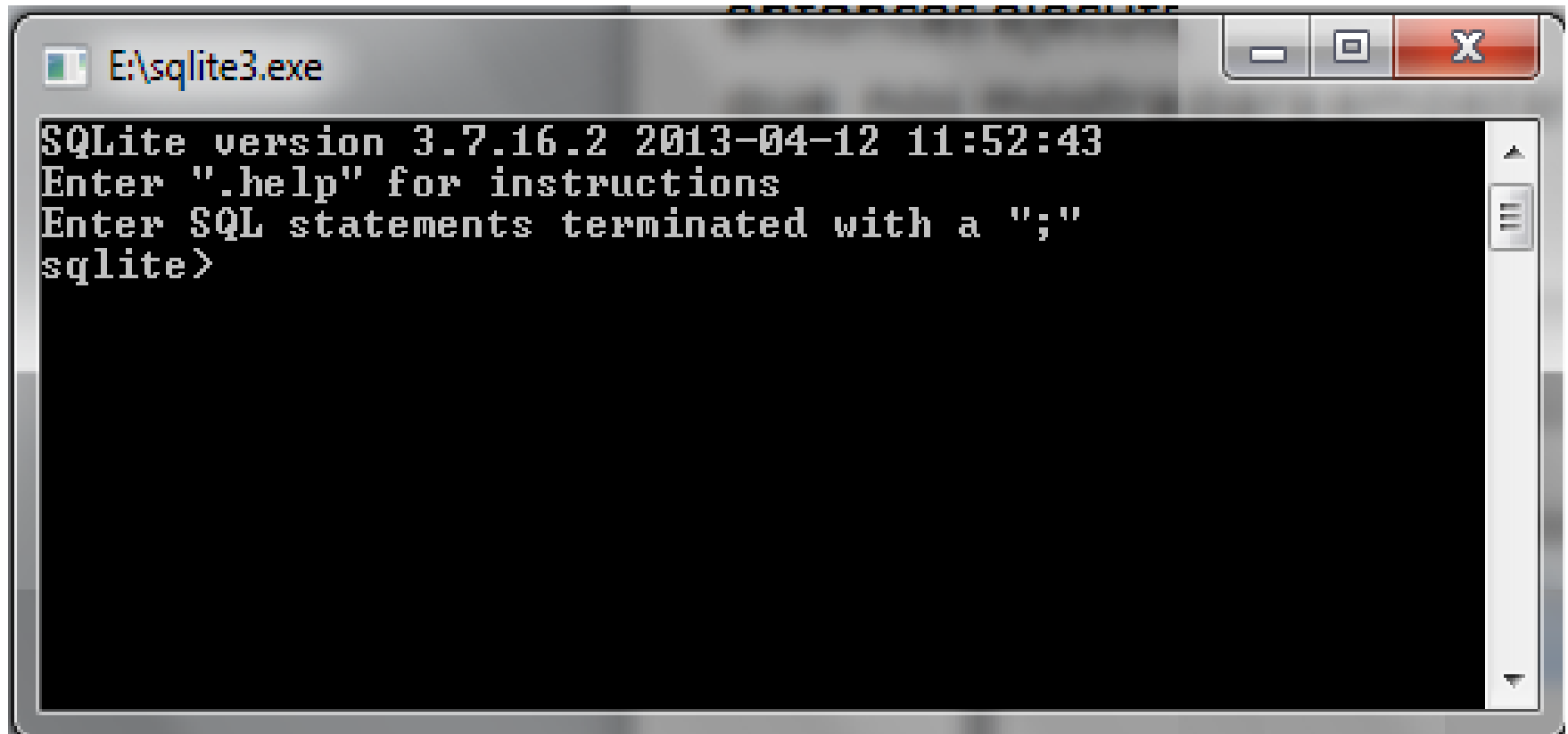
Aquí se tiene
que descargar

Luego de descargar, se tiene que desempaquetar el producto, y entonces ejecutar un archivo *.exe,



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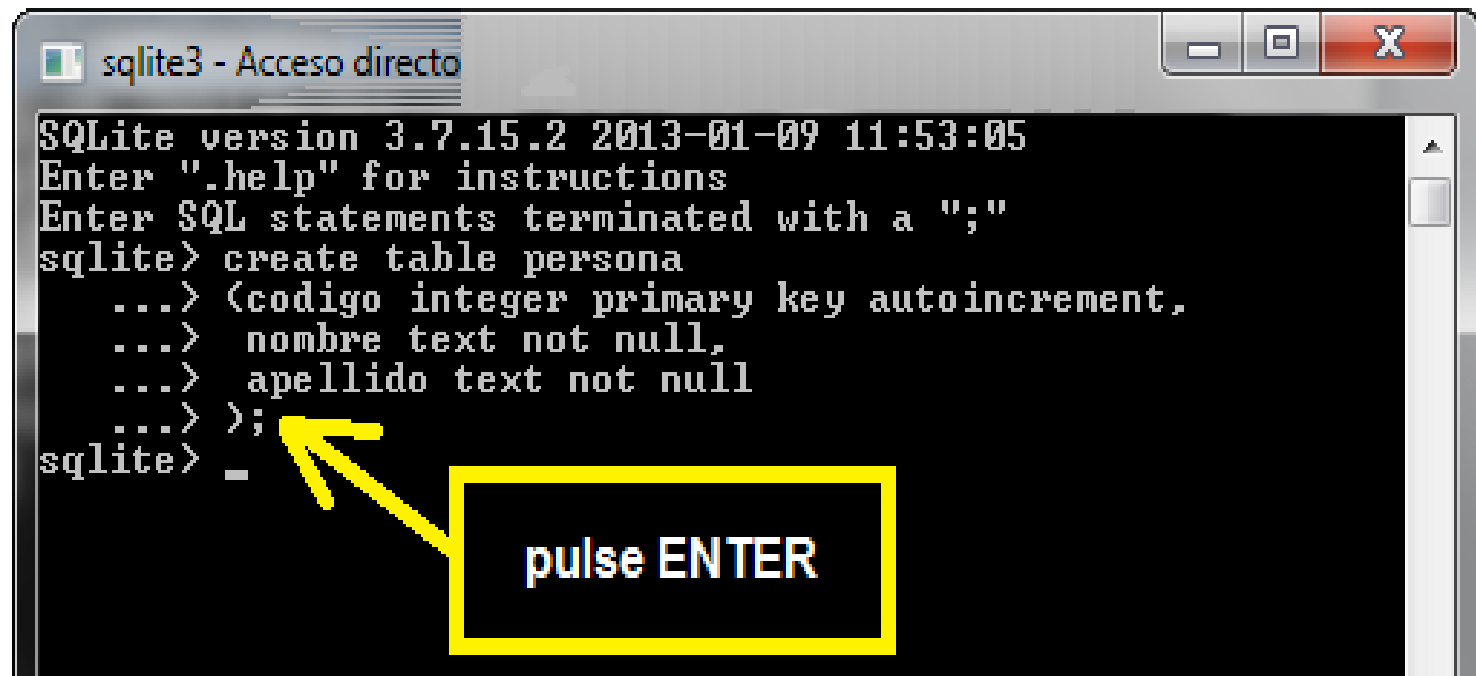
que nos mostrará una consola lista para empezar a aplicar las sentencias SQLite :

A screenshot of a Windows command prompt window titled "E:\sqlite3.exe". The window has standard Windows window controls (minimize, maximize, close) in the top right corner. The text inside the window is as follows:

```
SQLite version 3.7.16.2 2013-04-12 11:52:43
Enter ".help" for instructions
Enter SQL statements terminated with a ";"
sqlite>
```

Utilizando la consola del SQLite

Creando una Tabla

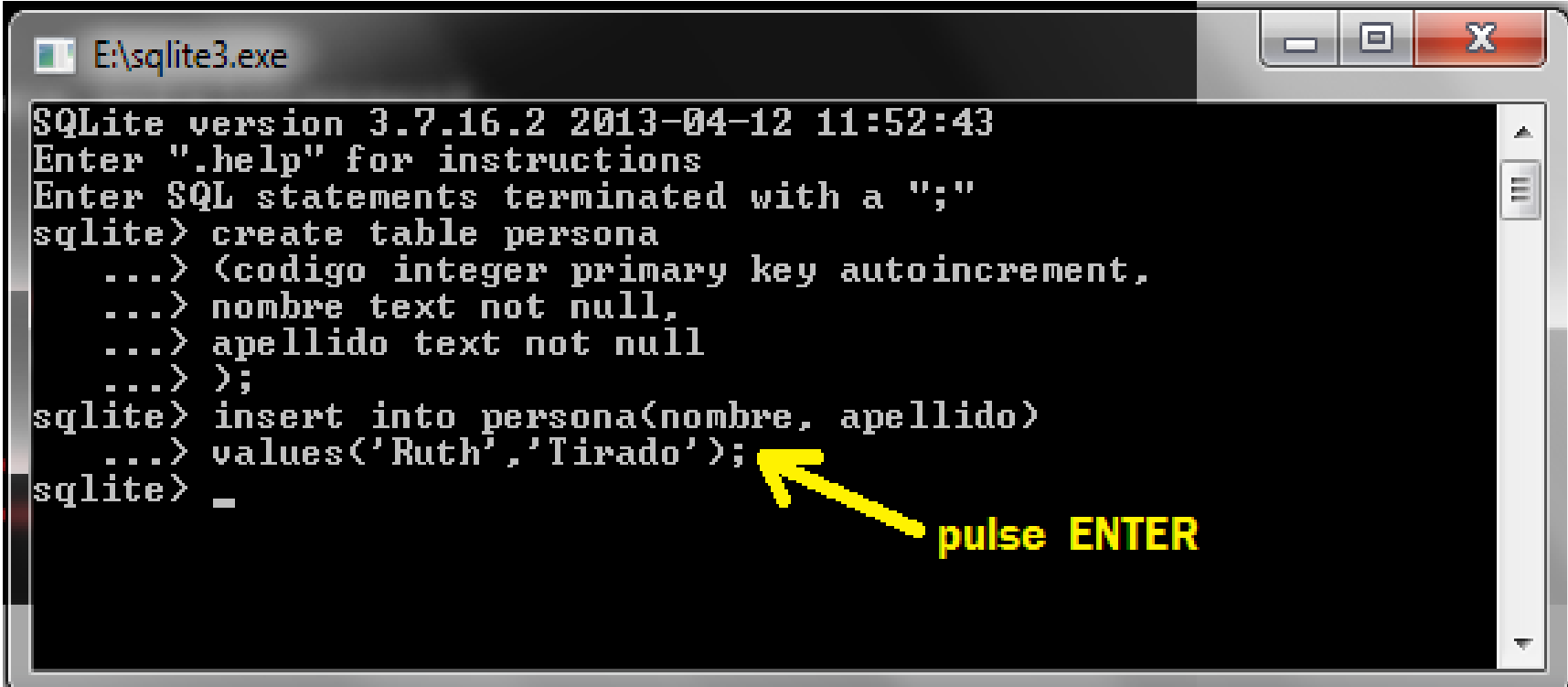


The screenshot shows a terminal window titled "sqlite3 - Acceso directo". The text inside the terminal is as follows:

```
SQLite version 3.7.15.2 2013-01-09 11:53:05
Enter ".help" for instructions
Enter SQL statements terminated with a ";"
sqlite> create table persona
...> (codigo integer primary key autoincrement,
...>  nombre text not null,
...>  apellido text not null
...> );
sqlite> _
```

A yellow arrow points from a yellow box containing the text "pulse ENTER" to the semicolon at the end of the SQL statement. The box and arrow are overlaid on the terminal window.

Insertando Registros :

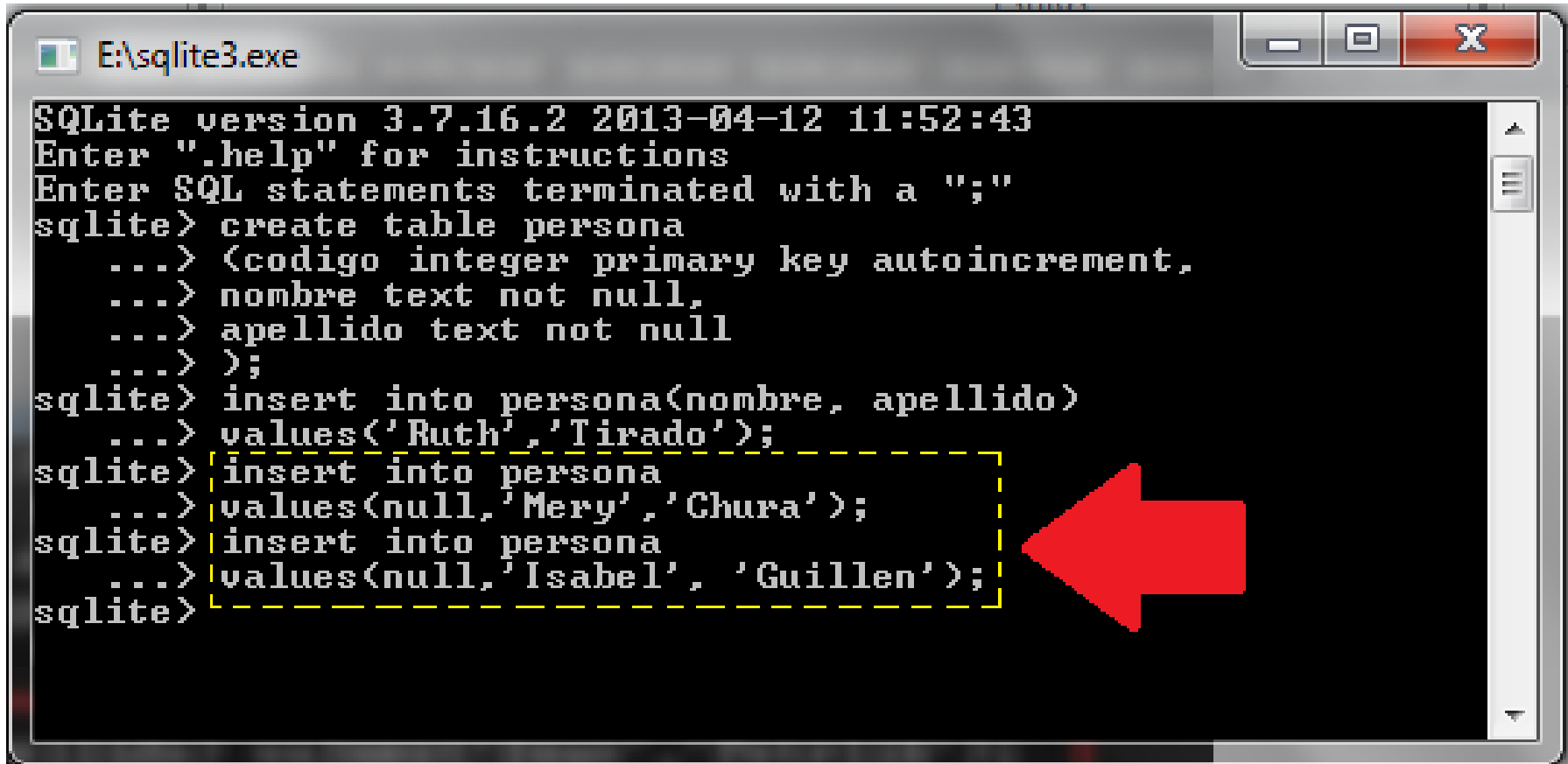


The screenshot shows a window titled "E:\sqlite3.exe" with a black background and white text. The text displays the SQLite version (3.7.16.2) and the date/time (2013-04-12 11:52:43). It then shows the command prompt instructions: "Enter '.help' for instructions" and "Enter SQL statements terminated with a ';'". The user has entered the following SQL commands:

```
sqlite> create table persona
...> (codigo integer primary key autoincrement,
...> nombre text not null,
...> apellido text not null
...> );
sqlite> insert into persona(nombre, apellido)
...> values('Ruth','Tirado');
sqlite> _
```

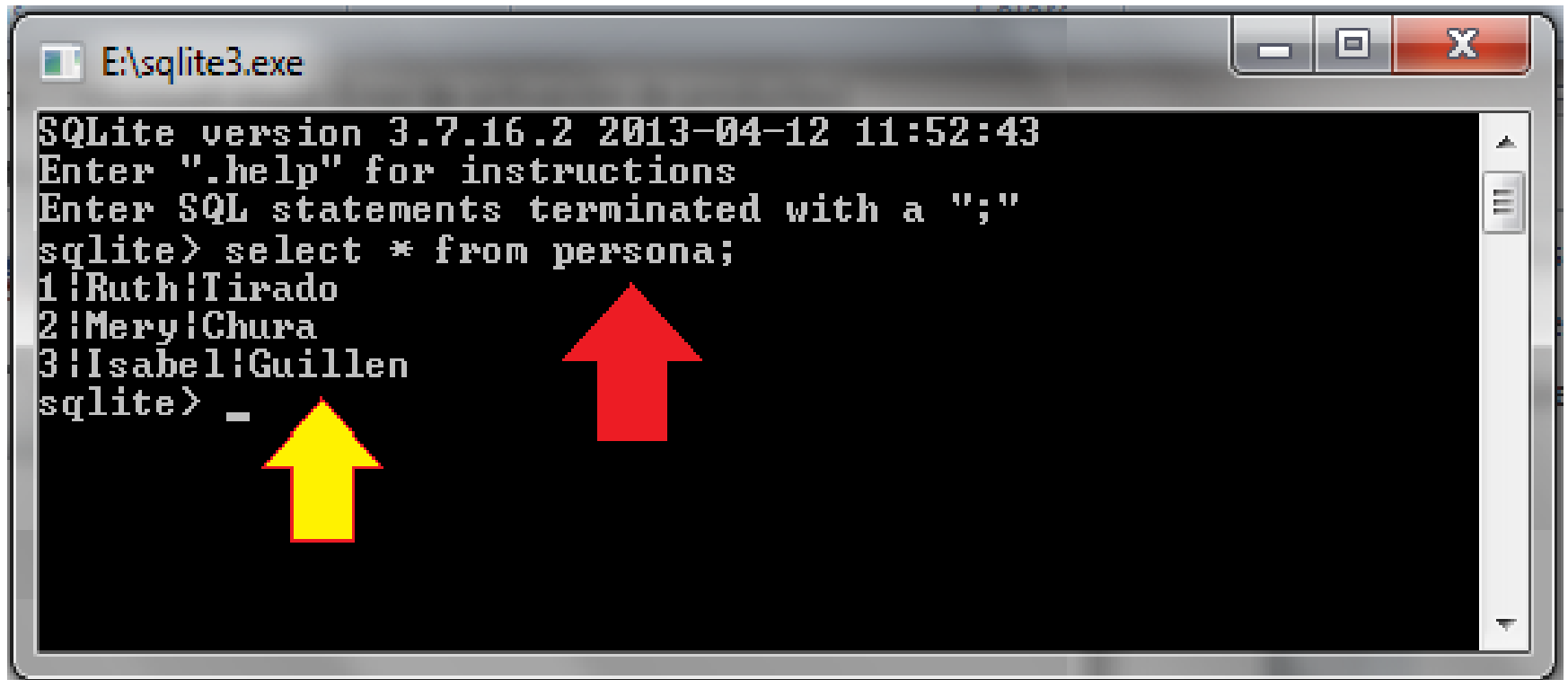
A yellow arrow points from the text "pulse ENTER" to the semicolon at the end of the insert statement.

Insertando Registros :



```
E:\sqlite3.exe
SQLite version 3.7.16.2 2013-04-12 11:52:43
Enter ".help" for instructions
Enter SQL statements terminated with a ";"
sqlite> create table persona
...> (codigo integer primary key autoincrement,
...> nombre text not null,
...> apellido text not null
...> );
sqlite> insert into persona(nombre, apellido)
...> values('Ruth','Tirado');
sqlite> insert into persona
...> values(null,'Mery','Chura');
sqlite> insert into persona
...> values(null,'Isabel','Guillen');
sqlite>
```

Mostrar Registros

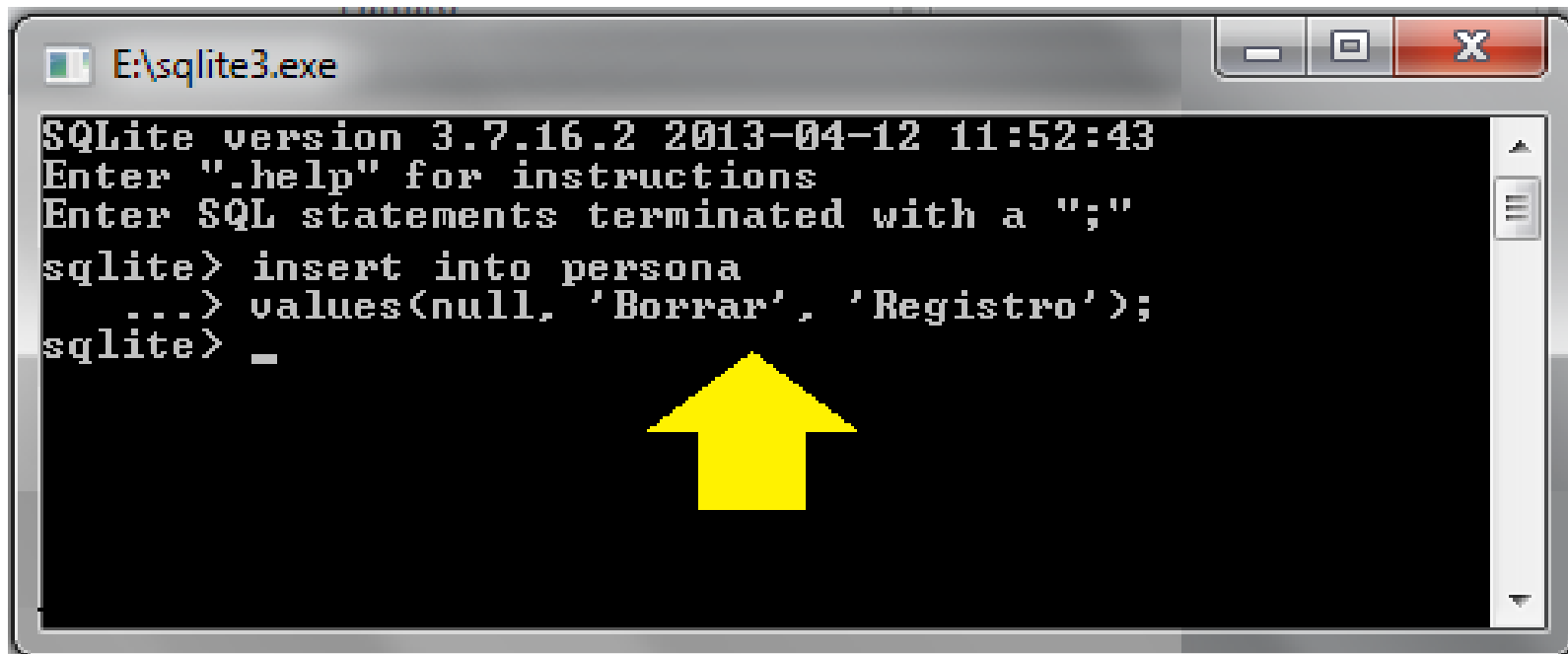


The screenshot shows a SQLite command-line window titled "E:\sqlite3.exe". The window has a black background with white text. The text inside the window is as follows:

```
SQLite version 3.7.16.2 2013-04-12 11:52:43
Enter ".help" for instructions
Enter SQL statements terminated with a ";"
sqlite> select * from persona;
1|Ruth|Tirado
2|Mery|Chura
3|Isabel|Guillen
sqlite> _
```

Two arrows are overlaid on the image: a yellow arrow pointing up to the underscore character at the end of the last line, and a red arrow pointing up to the third row of the query result.

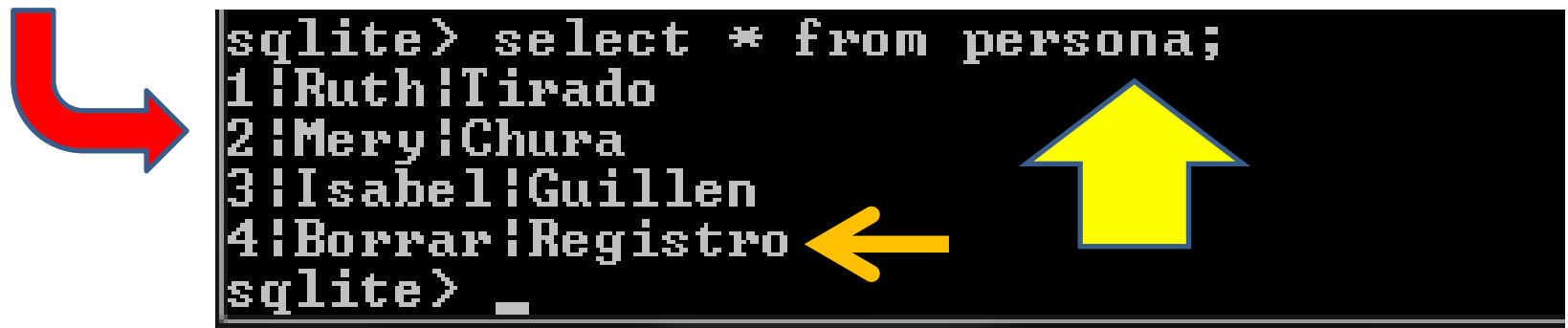
Coloquemos este registro 4, para eliminarlo en la siguiente diapositiva :



The screenshot shows a window titled "E:\sqlite3.exe" with a black background and white text. The text inside the window is as follows:

```
SQLite version 3.7.16.2 2013-04-12 11:52:43
Enter ".help" for instructions
Enter SQL statements terminated with a ";"
sqlite> insert into persona
...> values(null, 'Borrar', 'Registro');
sqlite> _
```

A large yellow arrow points upwards from the bottom center of the window towards the text "Registro" in the SQL statement.



The screenshot shows a black background with white text. The text inside is as follows:

```
sqlite> select * from persona;
1|Ruth|Tirado
2|Mery|Chura
3|Isabel|Guillen
4|Borrar|Registro
sqlite> _
```

A red arrow points from the left towards the first line of the output. A yellow arrow points from the right towards the fourth line of the output, which is "4|Borrar|Registro".

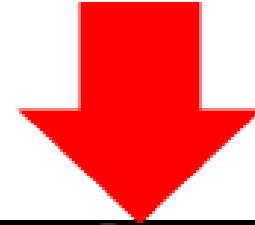
Eliminar Registro

```
sqlite> delete from persona where codigo=4;  
sqlite> select * from persona;  
1|Ruth|Tirado  
2|Mery|Chura  
3|Isabel|Guillen  
sqlite>
```

A continuación vamos a modificar un registro.

Cambiemos el nombre a Isabel por Flor ... siendo su código = 3

Modificar Registro



```
sqlite> update persona set nombre='Flor'  
...> where codigo=3;  
sqlite> select * from persona;  
1:Ruth:Tirado  
2:Mery:Chura  
3:Flor:Guillen  
sqlite>
```

