

## Data Sources and Drivers dialog for a DB data source

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To access this dialog from the [Database tool window](#):

- When creating a new data source:
  - + on the toolbar, **New** in the context menu, or **Alt+Insert**, then select one of the following: **Android SQLite**, **Data Source** and the name of your DBMS, **DDL Data Source**, or **Import from sources**.
- For an existing data source:
  - on the toolbar, **Properties** in the context menu, or **F4** or **Enter**.

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Use this dialog to manage your data sources and database drivers, and their settings.

Note that the drivers here are understood as collections of default options and settings for creating DB data sources. As such, they include more options than just the defaults for the corresponding drivers.

The names of new, yet unsaved items are shown in the left-hand pane in green. New items are saved when clicking **Apply** or **OK**.

- [Left-hand pane](#)
- [DB data source settings](#)
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### Left-hand pane

Shown in this pane are your data sources (under **Data Sources**) and [database drivers](#) (under **Drivers**). When you select an item (a data source or driver), its settings are shown in the right-hand part of the dialog.

Use **+**, **-**, **□** and , context menu commands and associated keyboard shortcuts to manage your data sources and drivers, and also to perform other, related tasks.

Icon and command	Shortcut	Description
+ Add	Alt+Insert	Use this icon, command or shortcut to create a new data source or database driver. Select: <ul style="list-style-type: none"><li>■ The name of DBMS to create a DB data source associated with the corresponding DBMS. If you have created your own drivers, you can also select a driver to use it as the basis for creating the data source.</li><li>■ <b>DDL Data Source</b> to create a DDL data source.</li><li>■ <b>Database Driver</b> to create a driver.</li></ul>
- Remove	Alt+Delete	Use this icon, command or shortcut to remove the selected item or items from the list.
□ Duplicate	Ctrl+D	Use this icon, command or shortcut to create a copy of the selected data source or data sources.
 Edit	Ctrl+B	Use this icon, command or shortcut to view or edit the settings for

Driver Settings		the driver associated with the selected DB data source.
Show Driver Usages	Alt+F7	Use this command or shortcut to find the DB data sources that use the selected driver. The found data sources are shown in the <b>Used By</b> popup which lets you navigate to anyone of the found data sources.

## DB data source settings

- [Name and Scope](#)
- [Database tab](#)
- [Schemas and Tables tab](#)
- [Advanced tab](#)

### Name and Scope

Item	Description
Name	Use this field to edit the name of the data source.
Scope	Select: <ul style="list-style-type: none"> <li>■ <b>Project</b> if the data source should be available only in the current project.</li> <li>■ <b>IDE</b> if the data source should be available in all of your projects.</li> </ul>

### Database tab

Shown on this tab are mainly the database connection settings.

Item	Description
Path	If the database is identified by the local path to a file or folder, specify the path to that file or folder. Otherwise, use the <a href="#">Host</a> , <a href="#">Port</a> and <a href="#">Database</a> fields.
Host	Specify the hostname (domain name) or the IP address of the computer on which the database is located. If the database is on your local computer, specify localhost or 127.0.0.1.  If you are using SSH, the database host must be accessible by the specified domain name or IP address from the computer on which the SSH proxy runs. See <a href="#">Configure SSH</a> .
Port	Specify the database port number.
Database	Specify the name of the target database or schema.
The following URL will be used...	Shown in this field is the URL that IntelliJ IDEA will use to connect to the database. Normally, you don't need to edit this setting.
User	Specify the name of the database user (i.e. your database user account name).
Password	Specify the password for the <a href="#">database user</a> .

Configure SSH	If the target database should be accessed using SSH, click this button and specify the associated settings in the <a href="#">Configure SSH Tunnel dialog</a> that opens.
Test Connection	Click this button to make sure that the database connection settings are correct and IntelliJ IDEA can communicate with the target database.
Driver files	<p>Specify the <a href="#">JDBC driver</a> file or files to be used to interact with the database.</p> <p>Click the <b>download</b> link to download the necessary driver files. As a result, the text will change to <i>Using &lt;driver_name&gt; driver files</i>. The <a href="#">&lt;driver_name&gt;</a> link in this case lets you navigate to the settings for the corresponding driver. (&lt;driver_name&gt;, normally, is the same as the name of the corresponding DBMS.)</p> <p>If the corresponding driver files are available locally on your computer, click <b>+</b> (Alt+Insert) and select the driver file location(s) in the <a href="#">dialog that opens</a>.</p>
Read-only	<p>Select this check box if you want to protect the data source from accidental data modifications.</p> <p>As a result, you won't be able to modify the data in the <a href="#">Table Editor</a>.</p> <p>Whether the data modification operations will be possible in the <a href="#">console</a> depends on the DBMS: IntelliJ IDEA will try to set the database connection status to read-only. All the rest depends on the database driver, i.e. whether the read-only status is supported and to which extent.</p>
Auto sync	<p>Select this check box to enable auto-synchronization of the data source view in the <b>Database</b> tool window. As a result, the view will be automatically updated when you change the database properties or run the corresponding DDL statements in the console. Thus, you won't need to perform the <a href="#">Synchronize command</a> (Ctrl+Alt+Y) for the corresponding database.</p> <p>Note that auto sync is performed for the overall database and, thus, may be time-consuming. So auto-synchronization is more suitable for "small" databases. If your database is "big", it's recommended that you sync its state manually (e.g. Ctrl+Alt+Y), and only for the appropriate database parts such as separate tables.</p>

## Schemas and Tables tab

Specify which [schemas](#) and tables in the target database you are going to be working with (i.e. which schemas and tables you want to see in the **Database** tool window for the corresponding data source).

Note that the features on this tab depend on your database access permissions. Also note that you might need to wait a little while IntelliJ IDEA is retrieving the necessary information from the database.

Item	Description
Schemas	Shown in this column are the schemas found in the database.
Scan for Tables	<p>Select the schemas you want to be working with. Only the selected schemas will be shown in the <b>Database</b> tool window.</p> <p>To select all the schemas, use the check box next to <b>*</b>.</p>
Make Default	In the selected schemas you'll be able to reference the tables by their "short" names (e.g. in the database console or your code). Otherwise, only fully qualified

	table names will be treated as valid.
Table names pattern	To further limit the set of tables shown in the <b>Database</b> tool window, specify the corresponding table name pattern. This pattern is specified using regular expressions and is matched against "short" table names in the selected schemas (the <a href="#">Scan for Tables</a> column).

### Advanced tab

On this tab, you can configure the database connection properties and also specify the options for the database driver JVM.

Item	Description
Name - Value	<p>The set of connection options passed to the database driver as key - value pairs at its start.</p> <p>To start editing a value, double-click the corresponding <b>Value</b> field.</p> <p>To add a row, start editing the values in the last row, where &lt;user defined&gt; and &lt;value&gt; are shown. A new row will be added to the table automatically.</p>
VM Options	The options for the JVM in which the database driver runs. (The driver is started as a separate process in its own JVM.)

For additional information, refer to your DBMS documentation.

### Android SQLite data source settings

Specify the settings for the SQLite database located on an Android device or emulator.

Item	Description
Name	Use this field to edit the name of the data source.
Device	Specify where the target database is located. This may be an Android device connected to your computer or a running Android device emulator.
Package name	<p>Specify the ID of the application the target database is associated with. Select a package name suggested by IntelliJ IDEA or, if none of the suggestions is suitable, type the ID.</p> <p>For the database to be accessible, the corresponding application must be built as debuggable and installed on the device or the emulator.</p>
Storage	<p>Select:</p> <ul style="list-style-type: none"> <li>■ <b>Internal</b> if the database is stored in the internal memory of the device or the emulator.</li> <li>■ <b>External</b> if the database is stored in the external memory of the device or the emulator.</li> </ul>
Database	<p>If the database is stored in the internal memory, specify the database name. One of the names suggested by IntelliJ IDEA may do.</p> <p>If the database is stored in the external memory, specify the database location relative to the memory root. This may be something like  <code>Android/data/&lt;application_ID&gt;/&lt;database_name&gt;</code></p>

Download	If the necessary SQLite driver files are missing, you can download them by clicking the <b>Download</b> link in the lower part of the dialog.
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### DDL data source settings

A DDL data source is defined by its name, and can reference one or more DDL files and/or another data source (a parent data source).

Item	Description
Name	Use this field to edit the data source name.
DDL Files	<p>Use the controls in this area to compose the list of files that contain the necessary DDL definitions.</p> <ul style="list-style-type: none"> <li>■  (Alt+Insert). Use this icon or shortcut to add a DDL SQL file or files to the data source definition. In the dialog that opens, select the necessary file or files.</li> <li>■  (Alt+Delete). Use this icon or shortcut to remove the selected file or files from the list.</li> <li>■  (Alt+Up). Use this icon or shortcut to move the selected file one line up in the list.</li> <li>■  (Alt+Down). Use this icon or shortcut to move the selected file one line down in the list.</li> </ul>
Parent Data Source	<p>If necessary, select another data source as a parent. As a result, the data source whose properties you are editing will "inherit" all the DDL definitions from its parent.</p> <p>If the parent data source is not needed, select <b>&lt;none&gt;</b>.</p>

### Database driver settings

- [Name](#)
- [Settings tab](#)
- [Advanced tab](#)

#### Name

Item	Description
Name	Use this field to edit the name of the <a href="#">driver</a> .

#### Settings tab

Shown on this tab are mainly the defaults for the [Database tab](#).

Item	Description
Class name	The fully qualified name of the driver class.
URL template	<p>The template used to construct the database URL. The text in curly brackets represents variables, e.g.</p> <ul style="list-style-type: none"> <li>■ {host} the domain name or IP address of the database host.</li> </ul>

	<ul style="list-style-type: none"> <li>■ {port} the database port number.</li> <li>■ {database} the name of the database or schema.</li> </ul> <p>Optional fragments are in square brackets, e.g. [:{port}].</p>
Default port	The default database port number. You don't need to specify this setting for <a href="#">local databases</a> .
Dialect	<p>The SQL dialect associated with the corresponding data sources. Via the data sources this dialect will "propagate" to the <a href="#">database console</a>.</p> <p>In addition to particular dialects, also the following options are available:</p> <ul style="list-style-type: none"> <li>■ <b>Plain text</b>. The content of the input pane is treated as plain text.</li> <li>■ <b>&lt;Generic&gt;</b>. Basic SQL92-based support is provided including completion and highlighting for SQL keywords, and table and column names. Syntax error highlighting is not available. So all the statements in the input pane are always shown as syntactically correct.</li> </ul>
Requires authentication	<p>Whether user authentication is required when connecting to the database.</p> <p>If the check box is selected, there are the <a href="#">User</a> and the <a href="#">Password</a> fields in the settings for the corresponding data sources.</p>
Local database	<p>Whether or not the database can be identified by the local path to a file or folder.</p> <p>If the check box is selected, there is the <a href="#">Path</a> field in the settings for the corresponding data sources.</p> <p>Otherwise, there are the <a href="#">Host</a>, <a href="#">Port</a> and <a href="#">Database</a> fields instead.</p>
Auto sync	The default setting for the <a href="#">auto sync option</a> .
Driver files	<p>Shown in this area is the list of the driver files. Use:</p> <ul style="list-style-type: none"> <li>■ The <b>download</b> link to download the necessary driver files.</li> <li>■ <b>+</b> (Alt+Insert) to add the files available locally to the list.</li> <li>■ <b>-</b> (Alt+Delete) to remove unnecessary files from the list. (No files are physically deleted.)</li> </ul>

### Advanced tab

Shown on this tab are the default settings for the [Advanced tab](#).

Item	Description
Name - Value	<p>The default set of connection options passed to the database driver as key - value pairs at its start.</p> <p>To start editing a value, double-click the corresponding <b>Value</b> field.</p> <p>To add a row, start editing the values in the last row, where &lt;user defined&gt; and &lt;value&gt; are shown. A new row will be added to the table automatically.</p>
VM Options	The default options for the JVM in which the database driver runs. (The driver is started as a separate process in its own JVM.)

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## See Also

### Language and Framework-Specific Guidelines:

- [Creating and Importing Data Sources](#)
- [Configuring a DB Data Source](#)

### Reference:

- [Database Tool Window](#)

### Web Resources:

- [Developer Community](#) □