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# MySQL quick start guide

The MySQL logo, which consists of the word "MySQL" in a white, bold, sans-serif font with a trademark symbol (TM) to the right. Above the letter 'S' is a white silhouette of a fish, the MySQL logo mascot. The background is a dark blue gradient with a faint, larger outline of the fish mascot.

MySQL™

This guide will help you:

- Add a MySQL database to your account.
- Find your database.
- Add additional users.
- Use the MySQL command-line tools through SSH.
- Install phpMyAdmin.
- Connect to your database using PHP.

You'll also find links to further information that will help you make the most of your database.

If you have printed this guide you may find it useful to make a note of your database details here.

Database server IP address:

Database name:

Database username:

## MySQL Quick Start Guide

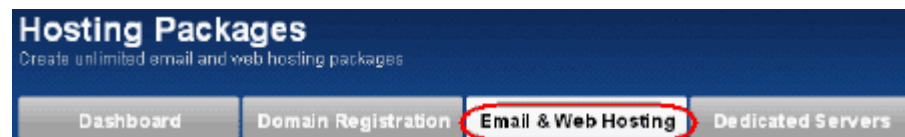
SQL databases provide many benefits to the web designer, allowing you to dynamically update your web pages, collect and maintain customer data and allowing customers to contribute to your website with content of their own. In addition many software applications, such as blogs, forums and content management systems require a database to store their information.

SQL stands for Structured Query Language, which is a standard interactive programming language used for many popular databases.

### ***Fasthosts database management screen***

From the database management screen you are able to create and edit your databases.

**Step 1** Login to your Fasthosts control panel and click on **Email & Web Hosting**.



**Step 2** Click on the domain you would like to add the database to.



**Step 3** Click on the **Databases** icon.



### ***Add a MySQL database to your account***

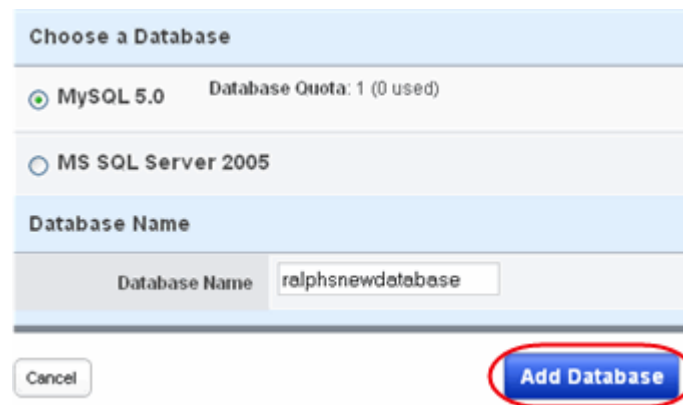
When you add a database to your account, it is created on one of our dedicated database servers but you can easily access it from your web space.

**Step 1** Follow the steps above to navigate to Fasthosts database management screen

**Step 2** Click **Add a new database**.

A blue rectangular button with white text that reads "Add New Database".

**Step 3** Choose *MySQL Server* as the database type, and enter a name for the new database. This name must be unique on our system, so you may be asked to try again if another customer has already chosen that name.

A screenshot of a web form titled "Choose a Database". It has two radio button options: "MySQL 5.0" (selected) and "MS SQL Server 2005". To the right of the first option is the text "Database Quota: 1 (0 used)". Below the options is a section titled "Database Name" with a text input field containing "ralphsnewdatabase". At the bottom left is a "Cancel" button, and at the bottom right is a blue "Add Database" button circled in red.

**Quick tip:** The username must be unique, so try using your domain name in the user name. For example, if your domain is *myonlineshop.com*, then you could call your database *myonlineshopdb* and the user could be *myonlineshopdbuser*.




**Note:** Database names are case sensitive.

Click **Add Database** when you've entered a name for your database.


**Step 4** Confirm your order, if necessary, by clicking the **Order Now** button. The database will be added to your package, and you will see an on-screen confirmation message.

## ***Find your database***

Your MySQL database is hosted on a specialised server optimised for MySQL databases. To connect to your database you must use the database server's IP address.

 **Important:** You cannot connect to your database using localhost.

Once you have created a database the Database name and IP address are shown on the Database management screen. Follow the steps shown in the section entitled "Fasthosts database management screen" to view your database details.

	Database Name	Space usage	Server IP Address	Database Owner
	<a href="#">ralphsnewdatabase</a>	0%	213.171.200.62	

## ***Add users to your database***

Once you have added your new database, you need to create at least one user to connect to it.

If you'd like to give other people, or software, access to your database, but want to restrict what they can do, create a new database user with different permissions.

- Step 1** Follow the steps shown in the section entitled "Fasthosts database management screen"
- Step 2** In the list of databases, click the database name.
- Step 3** Click the **Add User** button.



## Step 4

Choose a username for this user and enter it into the **Username** text box.

Select the *Give this user administrator privileges* box if you want this user to be a Database Administrator. Database administrators have full permission to add, modify, and remove tables and data within the database. If you do not tick this box you can modify the user's permissions later.

You also need to choose a password, and confirm it in the boxes provided.

**Note:** The username must be unique on our system.

Click **Add Database User** to create the new user. You will receive on-screen confirmation that the user has been created.

## ***Connecting to Your Database from the Command Line***

MySQL enables you to access your database through the command-line. This is useful if you want to check your database or perform setup tasks before you start using it.



**Note:** With most web applications, such as blogging, forums and ecommerce, you don't need to use MySQL's command-line tools.

If you have a Linux web hosting account, you can use SSH to connect to our Linux servers and start using the MySQL command-line tools straight away.

If you have a Windows web hosting account, you can install MySQL on your own PC.

MySQL is available to download for free from <http://dev.mysql.com/downloads/>.

## Step 1

At the command line – either on your own PC or through SSH – log into your database's server.



**Quick tip:** If you have installed MySQL on your Windows machine, you can open a command prompt window. To do this click on the **Start** menu, select **Run**, and type **cmd**. Then click the **Ok** button.

Here is an example of what you need to type to connect to your MySQL database.

### Example:

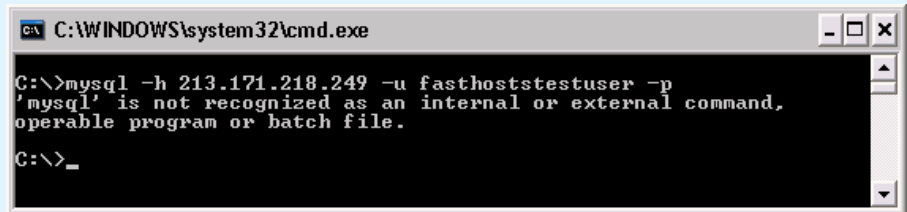
```
1 mysql -h 213.171.218.249 testdatabase -u testuser -p
```

Lets break this example down and explain it in a little more detail:

- **mysql:** Specifies to connect to a MySQL database.
- **-h 213.171.218.249:** This specifies the database server to connect to. This is the IP address of your database, in this example we use *213.171.218.249*.
- **testdatabase:** The name of your database.
- **-u testuser:** The `-u` flag specifies the username, in this example the username we want to connect with is *testuser*.
- **-p:** This will ensure you are prompted for a password with which to connect to the database.



**Note:** If you are running Windows and have not installed MySQL, you will see an error message.

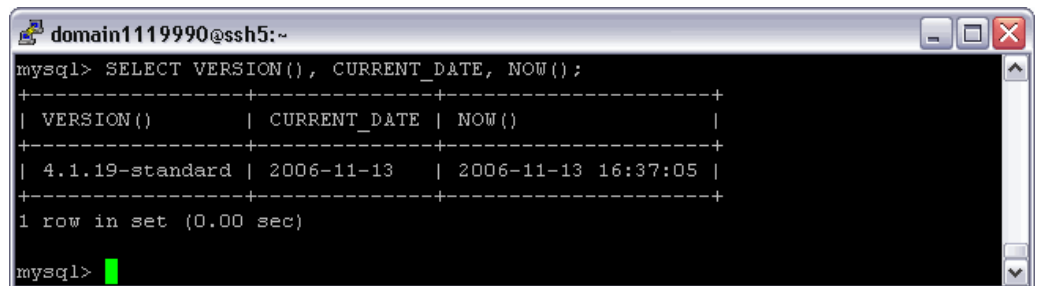


```
C:\WINDOWS\system32\cmd.exe
C:\>mysql -h 213.171.218.249 -u fasthoststestuser -p
'mysql' is not recognized as an internal or external command,
operable program or batch file.
C:\>_
```

## Step 2

You can check that you have successfully connected to the database by asking for its version and the current date. At the `mysql>` prompt type:

```
SELECT VERSION(), CURRENT_DATE, NOW();
```



```
domain1119990@ssh5:~
mysql> SELECT VERSION(), CURRENT_DATE, NOW();
+-----+-----+-----+
| VERSION() | CURRENT_DATE | NOW() |
+-----+-----+-----+
| 4.1.19-standard | 2006-11-13 | 2006-11-13 16:37:05 |
+-----+-----+-----+
1 row in set (0.00 sec)

mysql>
```



**Note:** More support and advice on using the MySQL Command Line Utility is available from the MySQL website, at:

<http://dev.mysql.com/doc/refman/5.0/en/mysql.html>.

## Setting your user permissions

It is good practice to create additional users with limited permissions to connect to your database for day to day use.

Using the SSH command-line, you can grant the following permissions to MySQL database users on our shared hosting platform:

- **ALTER** – permission to alter table structures.
- **CREATE** – permission to create tables.
- **CREATE TEMPORARY TABLES**
- **DELETE** – permission to run DELETE statements.
- **DROP** – permission to delete tables.
- **INSERT** – permission to run INSERT statements.
- **LOCK TABLES** – permission to stop other sessions modifying data.
- **SELECT** – permission to run SELECT queries to return records.
- **UPDATE** – permission to update records in the database.

The permissions that you cannot grant are:

- **ALL**
- **FILE**
- **PROCESS**
- **RELOAD**
- **SHOW DATABASES**

In the following example we have already created a new user, which our website will use to connect to our database with. For this reason, we will limit the access this user will have to our database.

Log in to your database using the command line, by following the instructions in the previous chapter. You need to log in as an administrator of your database.

Once you are connected to the database you can use the grant statement to grant individual rights to different users of a database. This can be used in the following format:

```
1 GRANT permissions ON databasename.databasetable TO 'username'@'hostname';
```

When you are granting permissions to a user across the entire database you can replace the "databasetable" with an asterisk.

for instance if you has a database called "bobsdatabase" and wanted to give the user "bob" the ability to SELECT, INSERT and ALTER on all tables within your database,



the code would be as follows:

```
1 GRANT SELECT, INSERT, ALTER ON bobsdatabase.* TO 'bob'@'%';
```



**Quick tip:** More information on the GRANT statement can be found on the mysql website at:

<http://dev.mysql.com/doc/refman/4.1/en/grant.html>

### ***Installing phpMyAdmin***

The phpMyAdmin project is a web application that makes it easy to create and manage your MySQL database. You can download it free of charge and install it in your web space.

You can find out how to install phpMyAdmin by following the guide below, and you can read more about how to use the software in the project's documentation at:

[http://www.phpmyadmin.net/home\\_page/docs.php](http://www.phpmyadmin.net/home_page/docs.php)

#### **Step 1**

Download the most recent stable version of phpMyAdmin from:

[http://www.phpmyadmin.net/home\\_page/downloads.php](http://www.phpmyadmin.net/home_page/downloads.php)

phpMyAdmin is available in several languages and archive formats.

If you are using a Windows PC, choose **english.zip**.

#### **Step 2**

Once you have downloaded the installation file, extract it using a suitable tool such as **WinZip** on Windows or the **unzip** command on Linux and MacOS X.

#### **Step 3**

The installation files will be extracted to a folder named **phpMyAdmin-2.9.1-english**, or similar. Rename this folder to **phpmyadmin**, and then use FTP to upload the entire folder to your web space's **htdocs** directory.

#### **Step 4**

Using a text editor, create a new file and enter the following text:

```
1 <?php
2 $i=0;
3 $i++;
4 // your database server's IP address
5 $cfg['Servers'][$i]['host']='213.171.218.246';
6 // Authentication method –config, http or cookie
7 $cfg['Servers'][$i]['auth_type']='config';
8 // your database username
9 $cfg['Servers'][$i]['user']='demousername';
10 // your database user's password
11 $cfg['Servers'][$i]['password']='trainingpassword';
12 ?>
```

Save this file as **config.inc.php** and upload it into the **phpmyadmin** directory you have just created in step 3.



**Quick tip:** By default Windows Notepad will save your files with a .txt extension. To save as a .php file, select **All files** from the file type drop-down list while saving.

### Step 6

Visit your phpMyAdmin folder through your web browser, and you will see the welcome page and will be able to start configuring your database.

- For example, <http://www.yourdomain.com/phpmyadmin>.

## Connecting to your Database Using PHP

### Using third party applications

Many third party applications such as forum, blogging and ecommerce software require a connection to a MySQL database. When you configure your software's connection to the database you will need your:

- database server's IP address
- database name

- database username and password.

### Connecting from your own scripts

To connect to the database from your own PHP scripts use the `mysql_connect()` function.

To connect you will need to specify the IP address, name and user details of your database.

For example if we were connecting to a database called **demodatabase**, on `213.171.218.246`, with the username `demousername` and the password `password`, we would use the following script:

```
1 <?php
2 $dbhost = '213.171.218.246';           // your database server's IP address
3 $dbuser = 'demousername';           // the database username
4 $dbpass = 'password';               // the database password
5 $conn = mysql_connect($dbhost, $dbuser, $dbpass) or die('error connecting to your database'); //
// opens a connection to the server or gives an error
6 $dbname = 'demodatabase';           // the database name
7 mysql_select_db($dbname);           // connects to your database
8 ?>
```

### Where to get further help and assistance

MySQL maintain a comprehensive support website, which should be able to answer any questions you may have. This is available at:

<http://dev.mysql.com/support/index.html>

MySQL have created a tutorial on connecting to MySQL using the command line, which is available at:

<http://dev.mysql.com/doc/refman/4.1/en/tutorial.html>

If you need help with the setup and usage of PHPMyAdmin, you can take a look at the support pages on their website at:

[http://www.phpmyadmin.net/home\\_page/docs.php](http://www.phpmyadmin.net/home_page/docs.php)

If you wish to use the PHP scripting language to connect to your database on your website, a full reference can be found on the PHP website at:

<http://uk.php.net/mysql>