


# Installing MySQL for LAMS

## LAMS 3.1

 Using LAMS 3.1

You must use MySQL 8

[Download MySQL 8](#)

### Important mysql settings in my.cfg/my.ini:

```
[mysqld]

## LAMS additions

explicit_defaults_for_timestamp
character-set-server = utf8mb4
collation-server = utf8mb4_unicode_ci
transaction-isolation=READ-COMMITTED
sql-mode="ONLY_FULL_GROUP_BY,STRICT_TRANS_TABLES,NO_ZERO_IN_DATE,NO_ZERO_DATE,ERROR_FOR_DIVISION_BY_ZERO,
NO_ENGINE_SUBSTITUTION"
interactive_timeout = 300
wait_timeout = 300
innodb_file_per_table = 1
max_allowed_packet=32M


[mysqldump]
default-character-set=utf8mb4
hex-blob=1
single-transaction=1
quick=1
```

### Create DB and db user

(default settings, please change)

```
mysql> CREATE DATABASE lams DEFAULT CHARACTER SET utf8mb4 COLLATE utf8mb4_unicode_ci;
mysql> CREATE USER 'lams'@'localhost' IDENTIFIED BY 'lamsdemo';
mysql> GRANT SELECT,INSERT,UPDATE,DELETE,CREATE,CREATE TEMPORARY TABLES,DROP,INDEX,ALTER ON lams_nus3.* TO
'lams'@'localhost';
mysql> FLUSH PRIVILEGES;
```

## LAMS 2.5 and 3.0

 Using LAMS 2.5+ on WildFly?

You must use MySQL 5.7.10+

LAMS requires MySQL 5+. Note that it **will not work with MySQL 4 or below**.

You can download MySQL 5+ for Windows from the [MySQL downloads website](#).

## Installing and Configuring MySQL

This tutorial shows how to install MySQL server and prepare a user and database for LAMS:

## Creating a the LAMS database

Login into MySQL as root and run the following two commands to create a database for LAMS and its user to access it:

```
mysql> DROP DATABASE IF EXISTS lams;
mysql> CREATE DATABASE lams DEFAULT CHARACTER SET utf8 COLLATE utf8_unicode_ci;
mysql> GRANT SELECT,INSERT,UPDATE,DELETE,CREATE,CREATE TEMPORARY TABLES,DROP,INDEX,ALTER ON lams.* TO
lams@localhost IDENTIFIED BY 'lamsdemo';
```

We use lams as database name and db user and lamsdemo as password. These are the default settings, but you can set your own. Just make sure you change these settings when you [build LAMS](#) (see common.properties file).

### Advanced stuff

Only required if you know what you are doing.

For those interested, you can find out more about installing and configuring MySQL from the [MySQL chapter](#) on Windows installation. For LAMS usage, the defaults in the installer should be fine.

LAMS expected the following two entries to exist in the my.ini file in the [mysqld] section

```
[mysqld]
transaction-isolation=READ-COMMITTED
sql-mode="STRICT_TRANS_TABLES,NO_AUTO_CREATE_USER,NO_ENGINE_SUBSTITUTION"
```

For those **installing on Windows *without* the installer**, please ensure you have these lines in your my.ini, or my.cnf. This file can usually be found in either your MySQL Server directory (e.g. C:\Program Files\MySQL Server 5.0) or in your Windows directory (C:\Windows). If you are using Linux/Ubuntu /Debian, you can probably find the file in /etc/mysql/my.cnf.

If **installing MySQL using the MySQL Windows installer** the sql-mode will already be set for you. In this case the transaction-isolation setting will be configured by the LAMS Windows installer, so you don't have to worry about editing the my.ini file.