

# Introduction to MySQL

Master on Libre Software 2012

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LibreSoft  
we study libre software

**GSyC**



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- Relational Database Management System
- Multi-Platform
- SQL compatibility
- Supports several storage engines (MyISAM, InnoDB, MERGE, MEMORY ...)
- Triggers, functions, stored procedures, GIS, replication, clustering, ...
- GPL License (and some others commercial licenses)

# History

- Developed by Michael Widenius and David Axmark
- 1995 MySQL AB company founded
- 1995 First internal release of MySQL
- 2000 MySQL goes free software (GPL)
- 2005 MySQL 5.0
- 2008 Sun Microsystems acquires MySQL AB
- 2008 MySQL 5.1
- 2010 Oracle acquires Sun Microsystems
- 2011/09 Oracle starts to sell commercial extensions
- 2012/09 MySQL 5.5.28

# MySQL command line client

Command:

```
mysql [<options>] database
```

Common options:

- user, -u: MySQL user name
- password, -p: user's password
- host, -h: connect to the server on the given host

# Everyday MySQL commands (I)

- Create a database

```
mysql> create database <name>;
```

- Drop a database

```
mysql> drop database <name>;
```

- Change of database

```
mysql> use <name>;
```

# Everyday MySQL commands (II)

- List of databases

```
mysql> show databases [like <exp>;
```

- List of tables

```
mysql> show tables [like <exp>] [from <database>;
```

- Table description

```
mysql> show fields from <table>;
```

or

```
mysql> desc <table>
```

- Create a database

```
mysqladmin [<options>] create <database>
```

- Drop a database

```
mysqladmin [<options>] drop <database>
```

- List of variables

```
mysqladmin [<options>] variables
```



# Backup - mysqldump

- Back up a single database

```
mysqldump [<options>] <database> [<table> <table> ...]
```

- Back up multiple database

```
mysqldump [<options>] --databases [<db> <db> ...]
```

- Back up all databases in the server

```
mysqldump [<options>] --all-databases [<options>]
```

- Restore

```
mysql [<options>] <database> < <backup_file.sql>
```

- MySQL Workbench
  - Data modeling
  - SQL queries
  - Administration
- phpMyAdmin
- DBDesigner4



- KOFER, Michael. *The Definitive Guide to MySQL 5*, Apress, 2005.
- KRUCKENBER and PIPES. *Pro MySQL*, Apressdison-Wesley, 2005.

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