

# MySQL setup and sample database

Software Architecture

# Setup steps

1. Install Microsoft c compiler (Windows only)
2. Install EiffelStudio
3. Install mysql library
4. Install mysql connector
5. Compile mysql library
6. Install MySQL server and GUI front-end

# Installing Microsoft C compiler

The easiest way is to install VisualStudio from  
ides: <https://ides.ethz.ch>.

Alternatively you can install the Microsoft SDK:  
[http://dev.eiffel.com/Installing Microsoft C compiler](http://dev.eiffel.com/Installing_Microsoft_C_compiler).

# Installing EiffelStudio

Download and install: EiffelStudio 6.7 Build 85123 from into a directory esdir:

[http://sourceforge.net/projects/eiffelstudio/files/EiffelStudio%206.7/Build\\_85123/](http://sourceforge.net/projects/eiffelstudio/files/EiffelStudio%206.7/Build_85123/)

Then, setup environment variables:

`ISE_EIFFEL=esdir`

`ISE_PLATFORM=windows/win64/linux-x86/linux-x86-64`

`ISE_LIBRARY=$ISE_EIFFEL`

`PATH=$PATH:$ISE_EIFFEL/studio/spec/$ISE_PLATFORM/bin`

`ISE_C_COMPILER=msc`

# Installing mysql library

Checkout the library from:

<https://svn.origo.ethz.ch/eiffelstudio/branches/eth/eve/Src/library/mysql/>

into the directory `$ISE_LIBRARY/library/mysql`

# Installing mysql connector

- On windows: Download msi file from <http://dev.mysql.com/downloads/connector/c> and install it into `$ISE_LIBRARY/library/mysql/Clib_Full/connector-win`
- On Mac: <http://dev.mysql.com/downloads/connector/c>
- On Linux: install the package `libmysqlclient-dev`

# Compiling mysql library

On Windows, type:

1. Open a console at `$ISE_LIBRARY/mysql/Clib_Full`  
(Use VisualStudio command prompt or VisualStudio x64 command prompt)
2. Type “`compile_library.bat`”

On other platforms, type:

1. Open a console at `$ISE_LIBRARY/mysql/Clib_Full`
2. Type “`finish_freezing -library`”

# Installing MySQL

1. MySQL server:

<http://www.mysql.com/downloads/mysql>

2. MySQL workbench (GUI-front-end):

<http://www.mysql.com/downloads/workbench>



# Playing with the library database

Create an empty database called “Library” in mysql server.

Go to a console:

```
mysql library < library.sql
```

# Library schema

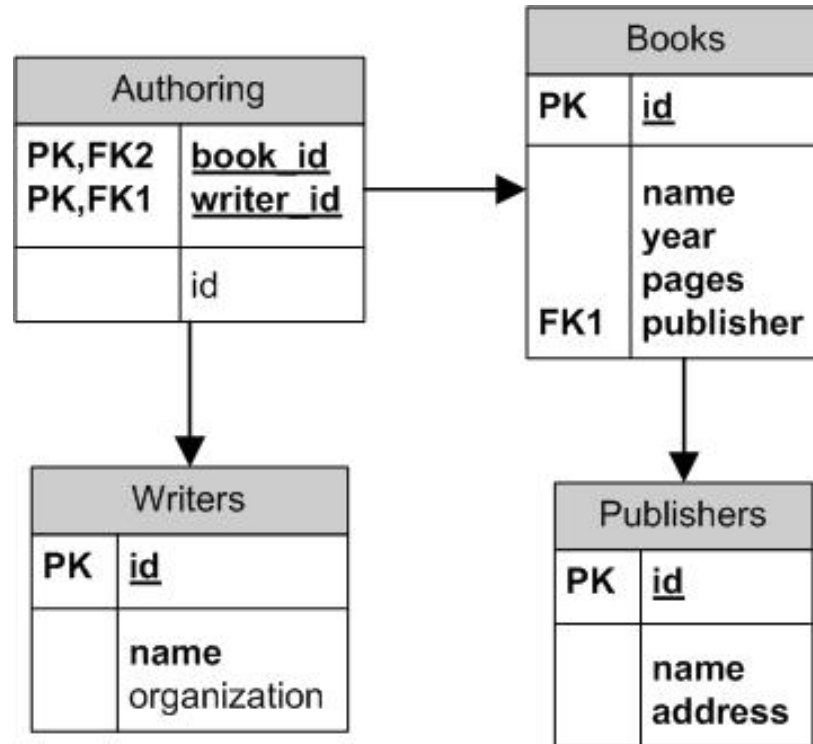
Four tables:

Writers

Publishers

Books

Authoring



# Sample select statements

Get all writers:

```
SELECT * FROM Writers
```

Get all books:

```
SELECT * FROM Books
```

# Sample select statements

Get all books published after 1990:

```
SELECT * FROM Books where year > 1990
```

# Sample select statements

Get all authors of the book “Design Pattern”

FROM Writers w, Books b, Authoring a

WHERE

b.id = a.book\_id AND

w.id = a.writer\_id AND

b.name LIKE "%Pattern%"