# Hibernate

## hibernate.cfg.xml

This file holds all configurations which hibernate needs to connect with database and maps tables to entity classes. To configure hibernate to connect with database, administrator has to change:

* connection url,
* username,
* password

In file:



## How it works

In project Hibernate works using session manager. Session is described in Hibernate documentation ([link](https://docs.jboss.org/hibernate/orm/3.5/api/org/hibernate/Session.html)). Connection is established in class DatabaseConnector. This is singleton which prevents against creating few connections for one Tomcat session. Access to database is realized using Data Access Object (DAO) class – there is one DAO class for one entity class.

# Database

## General information

Database model is represented in databaseModel.ea in folder Database. This is Enterprise Architect file.

## Tables

### Users

This table holds data about registered users. Password is hash (length 64, method: 256).

### Topics

This table holds data about topics added to forum. Text of topic is held in Reply table.

### Categories

Holds data about category. Not used.

### Reply

Holds data about replies added to topics.

### Commands

Holds data about command created by users (and default commands).

### CommandsLists

Holds data about user command lists. List can be public or private.

### Programs

Holds data about programs created by users. Is connected with user table directly – this means that user is author – and non-directly using libraries.

### ProgramsLibrary

Connects users with libraries (M to N relation).

### ProgramsMMLibrary

Connect programs with libraries (M to N relation).