



## DATA MODELLING AND DATABASES

### Setting up the Project Skeleton

## Project: Getting Started

This document will help you in installing our example project.

### Programming Language: Java

We recommend that you use Java to accomplish your project. Using Java will pay off in the second part of your project. Make sure that Java 6 or 7 is installed on your machine. To find out which version of Java you have installed, use this command:

```
java -version
```

If this command produces an error, make sure that your environmental variable `PATH` is set correctly<sup>1</sup>.

To avoid running into unexpected issues, make sure that the environmental variable `JAVA_HOME` is set and pointing to the installation path of java. To verify this, this command should start Java:

```
Windows: %JAVA_HOME%\bin\java -version
```

```
Linux: ${JAVA_HOME}/bin/java -version
```

### IDE: Eclipse

We recommend that you use Eclipse IDE for development. As this is going to be a web-based project, you should download the Eclipse for Java EE Developers. This can be downloaded from here:

<http://www.eclipse.org/downloads/packages/eclipse-ide-java-ee-developers/indigosr1>

### Web-Container: Tomcat

We recommend that you use Tomcat as the Web Server for your project as it has excellent Eclipse integration. To install Tomcat support in Eclipse, you will need to go into Eclipse's Preferences, under Server, Runtime Environments, and click Add, as shown in the screenshots below. Select Apache Tomcat 7.0, and on the next dialog click "Download and Install". Continue by selecting the location where you want tomcat to be installed. Wait some time for Tomcat to be downloaded and then the "Finish" option will be available.

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<sup>1</sup><http://java.com/en/download/help/path.xml>

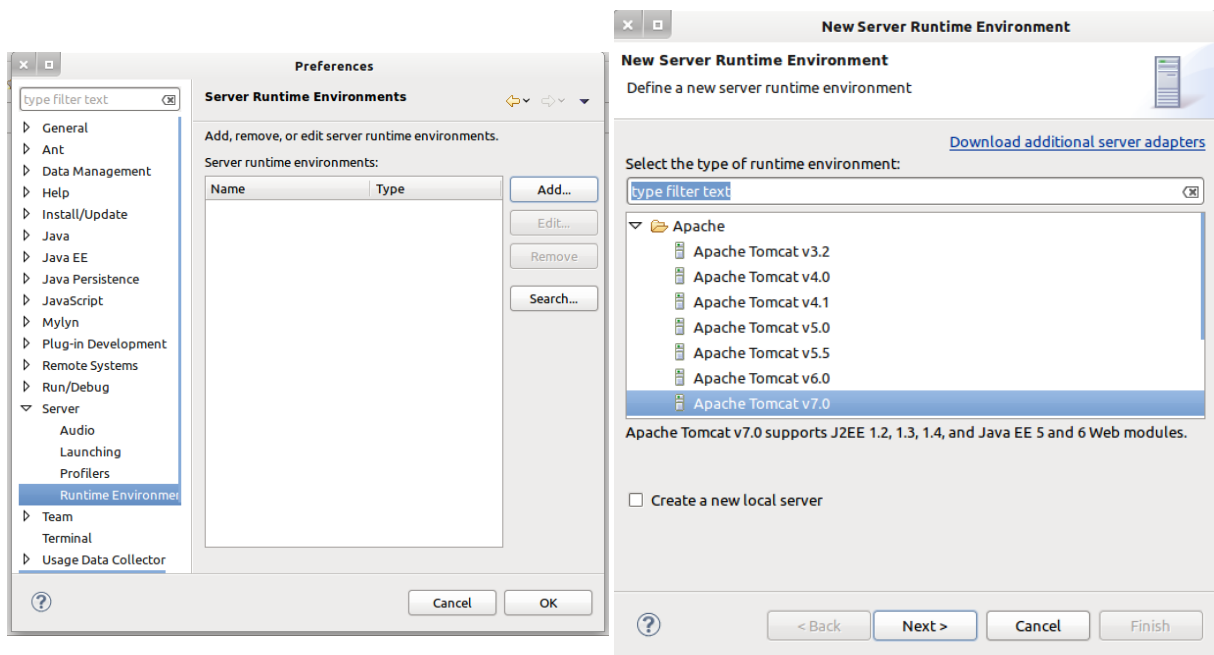


Figure 1: Adding the Tomcat 7.0 Runtime in Eclipse

## Database: MySQL

Install and start MySQL on your machine. Log in into MySQL as root:

```
mysql -u root
```

Add a new user and a new database. Give the new user privileges to read and write to the database:

```
create user dmdb@localhost identified by '1234';
create database dmdb2013;
grant all on dmdb2013.* to introdb@localhost;
quit;
```

## Compile and Deploy the Skeleton Project

The last step is to import the skeleton project into Eclipse and run it. Download the project archive from the course web site.

In your Eclipse, use File→Import dialog, select General: Existing Projects into Workspace. Point eclipse to the given archive file and click Finish.

To run the project, select Run→Run from Eclipse's menu bar. You should select "Run on Server", and then use the existing Tomcat 7 Runtime. To verify that the project is running, use a web browser and visit this URL:

```
http://localhost:8080/IntroDBProject
```

At this point you should be presented with the skeleton of the project. Play around with it and you will notice that a couple of things are missing. Examine the source code of the skeleton application. The skeleton provides a couple of useful utilities for simplifying the creation of HTML, like the `BeanTableHelper`. Please note that generating fancy HTML with nice effects is not part of this project. You should try to keep the presentation as simple as possible.