

Programming III Laboratory 8

Objectives

- working with databases

Database installation. Eclipse configurations

1. Database installation

- Getting database server:
 - Download Derby server: http://db.apache.org/derby/derby_downloads.html
 - Unzip database server
- Start database server
 - Open a command prompt in windows (press CTRL+R, then write *cmd*) (or a terminal on linux) and go in server *bin* directory (using *cd* command)
 - Enter the command: *startNetworkServer.bat* to start the server
- Create the DB or just use ij tools like sql client
 - Open a command prompt in windows or a terminal on linux
 - Go to server lib directory *java -jar derbyrun.jar ij*
 - Type the following command in order to connect: *CONNECT 'jdbc:derby://localhost:1527/exemplu;create=true';*

2. Eclipse configurations

- Create a new project
- Create a *lib* directory at the same level with *src* directory
- Copy into the jar files *derby.jar* and *derbyclient.jar* from server *lib* directory
- Add at classpath this jars
 - Right click on project name
 - Select menu option *Properties*
 - Select option *Java Build Path*
 - Select the tab *Libraries*
 - Press *Add* button and select the two jars fro lib directory
 - Press *Ok* Button
 - Copy the classes from the site to *src* directory

Exercises

1. Create an application that manages a database that contains a table Receipts. Each Receipt has an ID, a code, a client, a contractor, a amount and a date. Realize the following requirements on receipt table:

- Create a function that allows the display of all receipts from table
- Create a function that allows a receipt creation
- Create a function that displays the receipts from a period of time
- Create a function that allows the update of a receipt
- Create a function that calculates the values of all receipts paid to a contractor in a year