DB Practical Work 0:
Setting the system up

Abstract

The following leaflet gives the steps to set the development environment up.

Contents

1 Work to do

You have to set your system up in order to get a proper development environment.
You must install the environment by following section 2.

2 Installation

Using the virtual machine is recommended but you can also use a personnal machine to run the Vagrant image. **Choose one of the following subsection**.

2.1 On the Virtual Machine

1. Get the VM called "VMWARE UBUNTU 16 64 LTS - DBPROJECT M MARTINEAU" in `D:\VM Productions\` (if needed, the username is `ubuntu` and the password `password`)
2. Start it
3. Go in `/home/ubuntu/db-project/` : here are the sources already installed.
4. Put:
   - the SQL table creation commands (`CREATE TABLE`) inside `/home/ubuntu/db-project/sql/schemas.sql`
   - the SQL entries creation commands (`INSERT INTO`) inside `/home/ubuntu/db-project/sql/entries.sql`
5. Go in `/home/ubuntu/db-project/scripts` and click on `populate_db.sh`

If you open a web browser inside the VM and go to `http://127.0.0.1`, you will find the web application. PHPMyAdmin is accessible at `http://127.0.0.1/phpmyadmin/` (user: `root`, password: `password`).

There are many scripts to manipulate the VM : they are in `/home/ubuntu/db-project/scripts`. You can click on them to execute them.

Their roles are described in section 3.

2.2 Using the lightweight Vagrant image

You will need the following elements for the software to work:

1. Virtualbox (`https://www.virtualbox.org/`)
2. Vagrant (`https://www.vagrantup.com/`)

Once you have got all the requirements fulfilled, you can proceed with the following steps :

1. Download `https://github.com/prafiny/db-project/archive/master.zip`
2. Unzip the archive somewhere.
3. Put:
   - the SQL table creation commands (`CREATE TABLE`) inside `sql/schemas.sql`
   - the SQL entries creation commands (`INSERT INTO`) inside `sql/entries.sql`
4. Then
   - For Windows: go in the folder `scripts/win`, click on the `launch_vagrant` script. When it's done, click on `populate_db`. It will create the database.
   - For Linux/MacOS: go in the folder `scripts/` and execute the `launch_vagrant` script. When it's done, execute the script `populate_db`. It will create the database.
5. Wait

The Vagrant image should be ready and running. If you open a web browser and go to `http://127.0.0.1:8080`, you will find the web application. PHPMyAdmin is accessible at `http://127.0.0.1:8080/phpmyadmin/` (user: `root`, password: `password`).

You can edit the code directly on your host operating system. To shut the image down, you can use the script `stop_vagrant`.

There are many scripts to manipulate the image :

- For Windows in `scripts/win`
- For Linux/MacOS in `scripts`

Their roles are described in section 3.

3 Scripts

`populate_db` This script creates the tables and entries using the files in the folder `sql/`

`snapshot_db` This script saves the current `dbproject_app` mysql database into the `sql/` files

`tests` Launches the unit tests.

`update` Update the source code and dependencies.

`reset_env` resets the whole project WARNING : deletes all the data including `model_student/`, `sql/` and the SQL databases.