Week 3 Lab Handout

In this lab we'll go through the installation of MySQL backend and modify tables via a GUI frontend. It is recommended for all students to bring your own laptop and have your backend installed before the tutorial.

Install MySQL Backend

If you already have a MySQL server version installed, jump to frontend part.

Mac users

A recommended way is to install via homebrew package manager.

Install homebrew

```
/usr/bin/ruby -e "$(curl -fsSL https://raw.githubusercontent.com/Homebrew/install/master/install)"
```

Install MySQL

```
brew install mysql
```

Start MySQL service

```
brew tap homebrew/services
brew services start mysql
```

Set root user password

```
mysqladmin -u root password 'yourpassword'
```

Your backend is good to go.

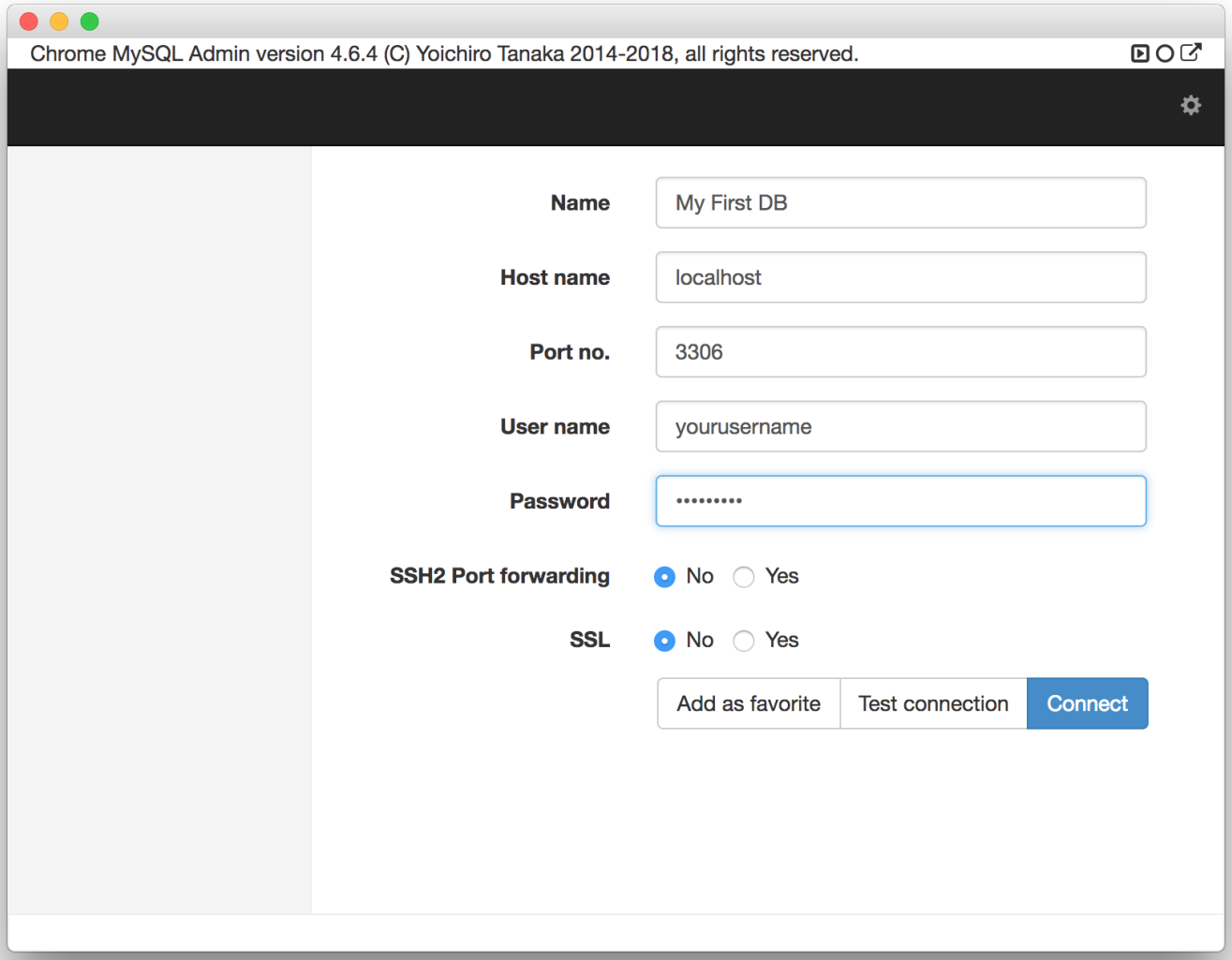
Windows users

Install the latest community server version here

Install a GUI frontend

Any MySQL compatible frontend will work. E.g., Sequal Pro (used in class, only available to Macs), MySQL Workbench and phpMyAdmin are very good frontends compatible to MySQL. You are free to use any frontend you like, but we'll use a Chrome app Chrome MySQL Admin due to its simplicity and **no need to install another program that eats your hard drive**.

Open this link using Chrome and click install. Open the app, put `localhost` in the "Host Name" field. Put your username and password you set previously in corresponding field. It should be something like this:



Click connect.

Manipulate the Database using frontend

We'll go through this and challenges are awaiting.

Add a database

Click "Process list" (the gears) on top-left corner and click the "plus" sign on bottom-right. Input the database name you want and click "Create". A new database will be added to your backend.

Add a table

Select your newly created table. Use the plus sign on bottom-left to create a new table with the table name you want.

Edit column structure

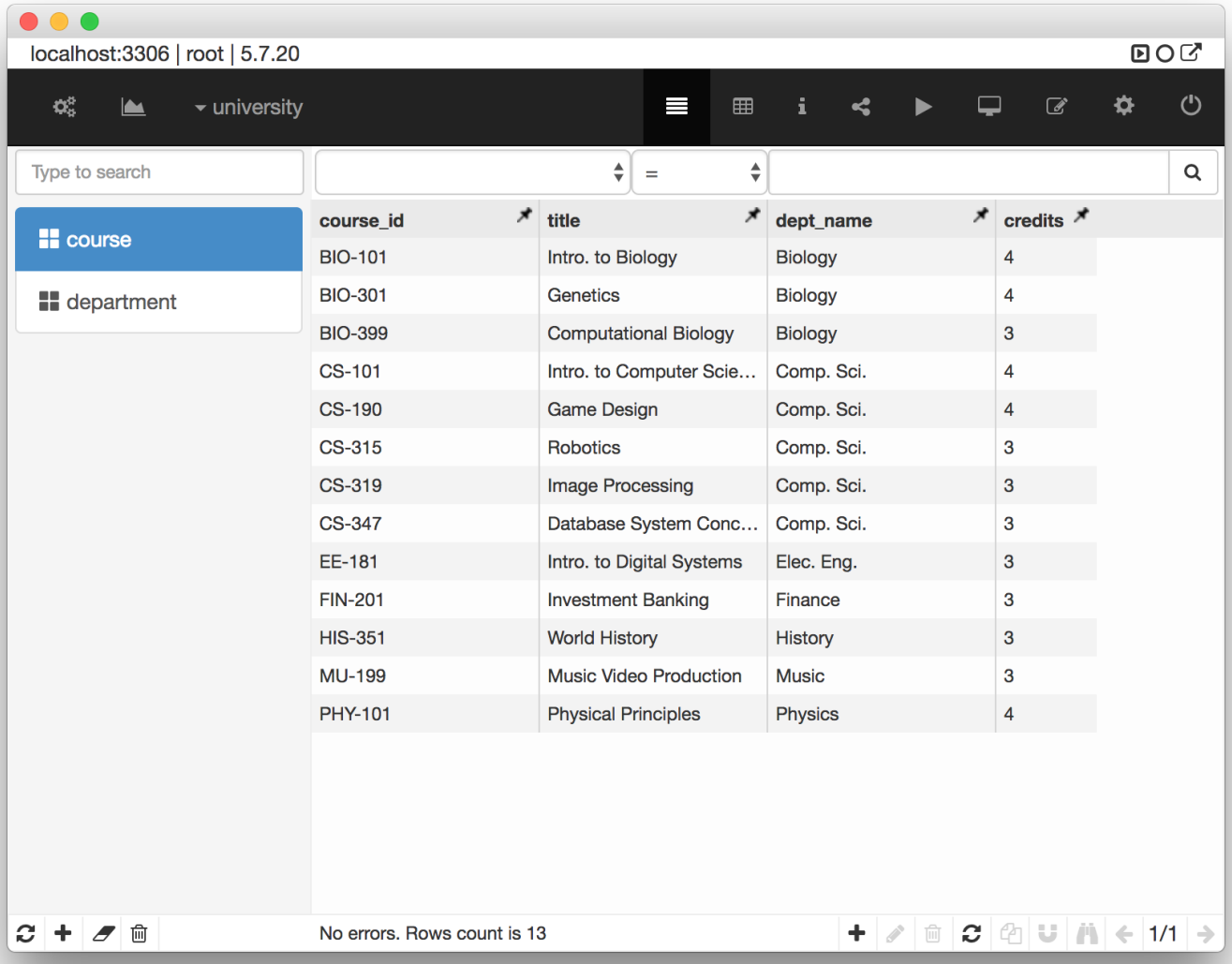
Click “structure” on top-right. Try add some columns, int, string, bool...

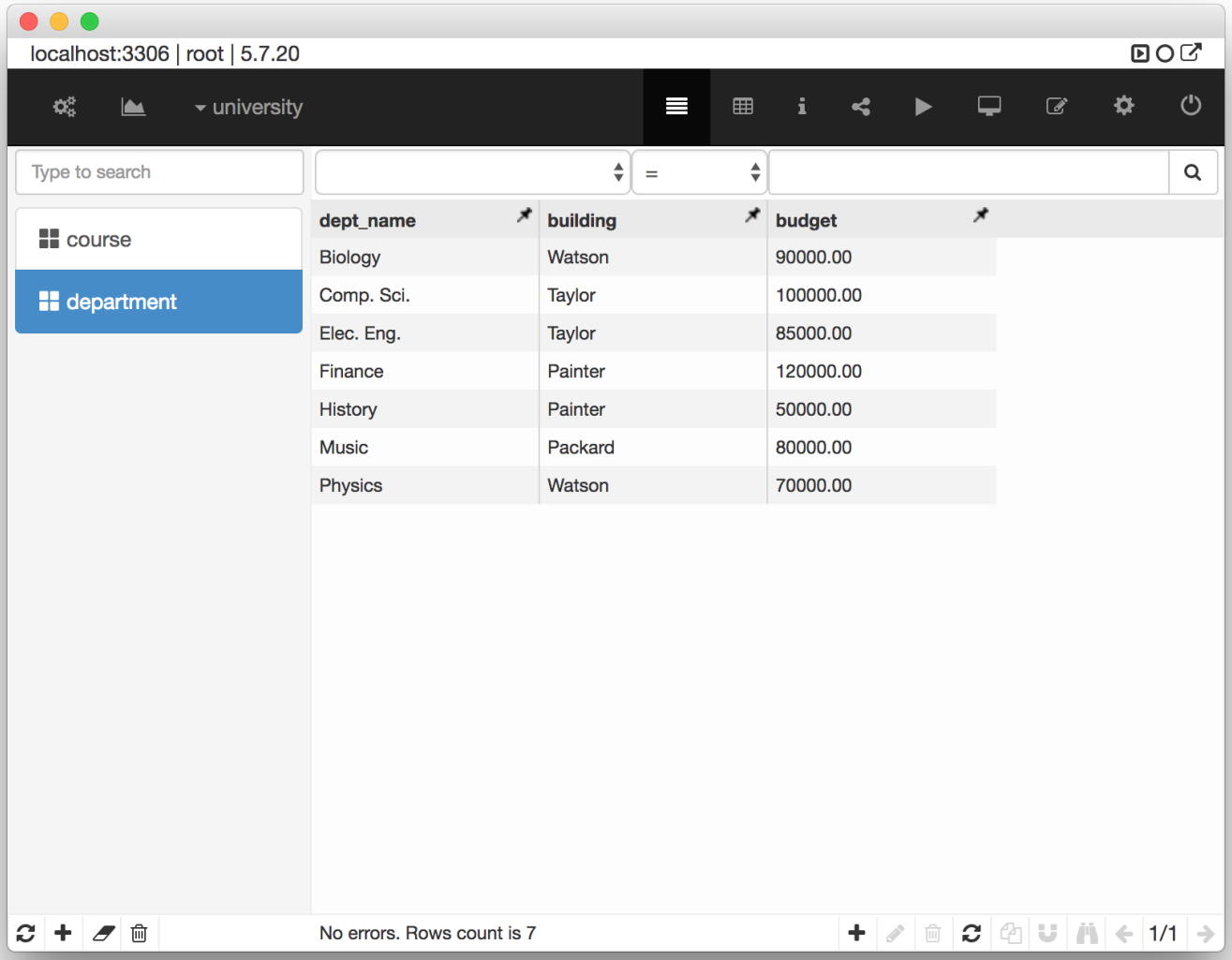
Add a row

Click “rows” on top-right and use the plus sign on bottom-right to add a row with the value you want.

Challenges

Create a database named `university` , with the following information filled:





Even more challenges (optional)

If you think those are just too easy, try to use the SQL you just learnt to find out all the computer science course ids.

More will be covered on next tutorial.