Practical 2
MySQL and Python (optional)

Background

Python can integrate with MySQL through MySQL Connector/Python, available from: http://dev.mysql.com/downloads/connector/python/.

This library allows you to create a connection to a MySQL database. Once a connection is created it can be used to create a cursor object. Cursor objects may be used to insert, update, delete and retrieve data. These operations are carried out through SQL commands executed through the cursor.

Code samples and tutorials are available at the official MySQL developer manual, https://dev.mysql.com/doc/connector-python/en/connector-python-example-cursor-transaction.html and https://dev.mysql.com/doc/connector-python/en/connector-python-example-cursor-select.html .

Tasks

T0 Write a python program to select all students from all modules and output them in a for loop. *Be wary of infinite loops*

T1 Write a python program to ask for student details interactively, i.e on a command line and then insert this data into the DB. You can request input using raw_input [Python 2.7] or input [Python 3]

T2 Write a program to output the student list from a module. The module will be specified through interactive input of a module code. This program should list all module codes and names before input is asked for

T3 Write a program to output the student list from a module. The module will be specified through interactive input of a module code. Once the student list has been displayed the program will as if you wish to remove a student. If so the program will ask for a student number, which when entered will delete the corresponding student

T4 Write a program to update a module name as specified through a module code. As with T2, the current modules should be output before the input is requested

T5 Write a program to insert students for a particular module. This program will output the list of modules and ask for two inputs; the module code and the name of a *.csv* file. This csv file will have details for all students to be entered into that module. Additionally, this program will DELETE all previous students stored before inserting the new ones