

Lab1: Create a github repo called 'Lab1' which will be pulled on the due date of 2/17. This is a standard Eclipse Java project. This is an individual effort.

Create a Todo system using a MySQL Database and a standalone(unmanaged) Java client. The client must be able to do the following:

- 1.) Connect to the mysql database. Both your database and client should be on **localhost**.
- 2.) Accept customer commands via System.in.
 - a.) **7pts.** "POST [id] [todo message]" : Stores the string 'todo message' in the database with the supplied integer 'id' and the client's timestamp. Overwrite any existing values.
 - b.) **7pts.** "GET [id]" : Retrieves and displays the todo message to the console and when it was posted.
 - c.) **7pts.** "GET" : Retrieves a List of all todo messages as a map of <id,todo message> pairs and prints it to the console.
 - d.) **7pts.** "DELETE [id]" : Deletes the todo message at the given id from the database.
 - e.) **12pts.** "REPLICATE [URI]" : Migrates the database from one mysql server to another. The destination is at 'URI' in the form "[host]/[database name]".
 - f.) **5pts.** If at any time a table has not been created the Java client will execute the sql to create it.
 - g.) **5pts.** Make use of PreparedStatement. Do NOT use the Statement object.