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Class: 3300 DBMS
Assignment: Project 3

Project 3 Java CLI User Guide

Chapters

1. Introduction and Dependencies

This CLI is meant to be used on a locally hosted mysql server. The CLI also assumes the server has the Silberschatz university database installed and somewhat populated. If both of those things are true, then the application should work as intended.

The application flow:

Dependencies

- The user has access read, write access to the course table.
- The user has access read access to the department table.
- The user must know their username and password
- The user must have the mysql java connector j jar file
  - https://dev.mysql.com/downloads/connector/j/

2. How to build the project

The application was built with a bash script that called the command

java -cp /usr/share/java/mysql-connector-j-8.0.32.jar project3.java

The general command looks something like this.

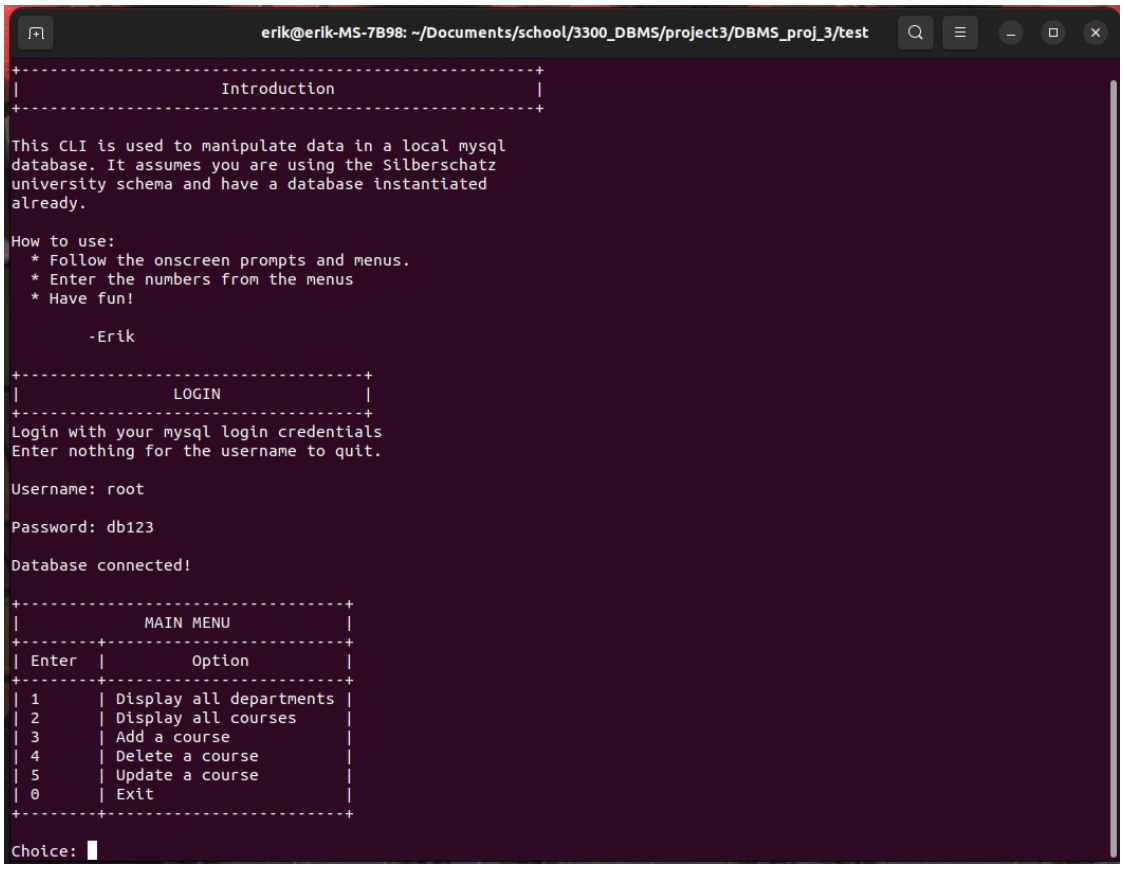
Java -cp <path to the connector j jar> <path to project .java>

The project should then open and run in the terminal window the command was entered.

Open a command line and run the command above with your unique paths.

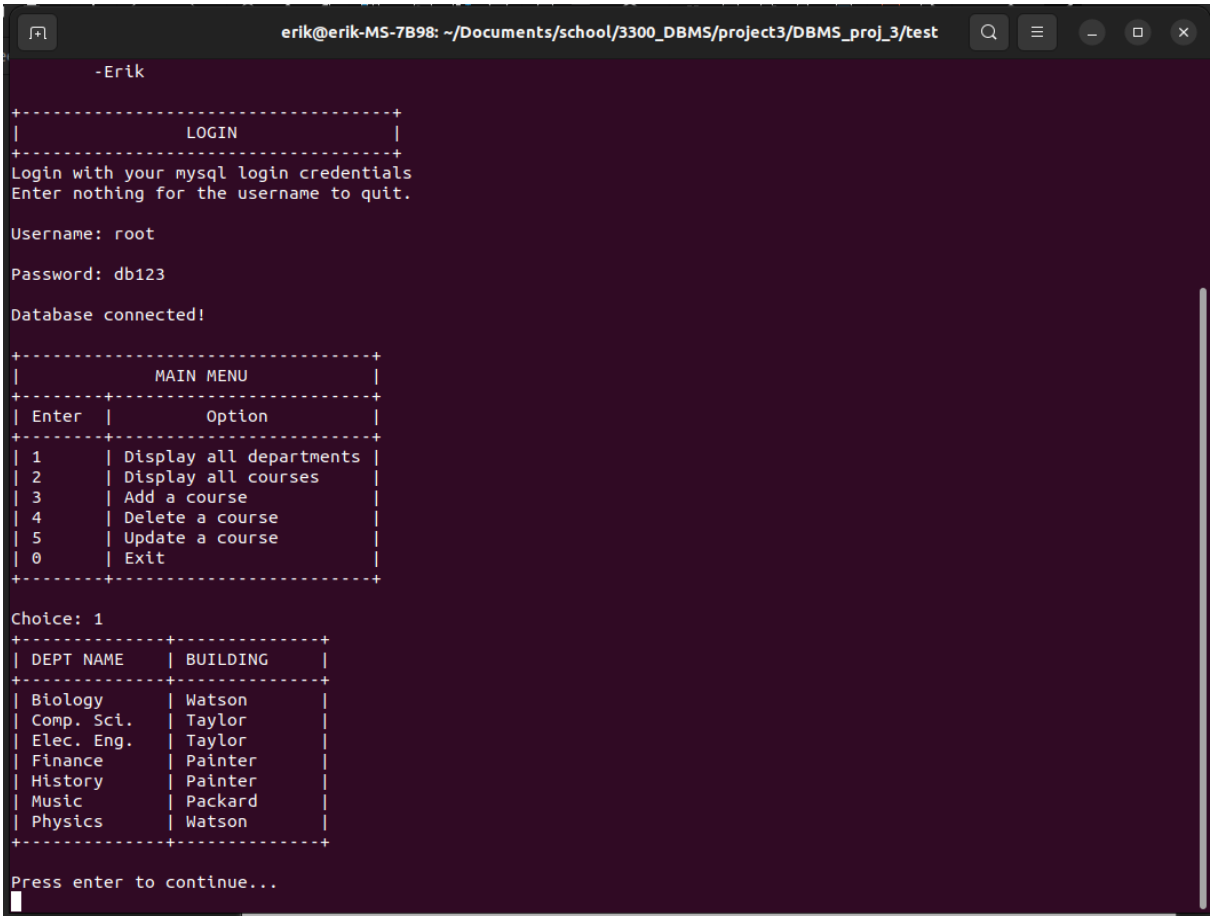
3. User Manual

After the project is built and ran, the user will be in an introduction screen asking for login credentials.



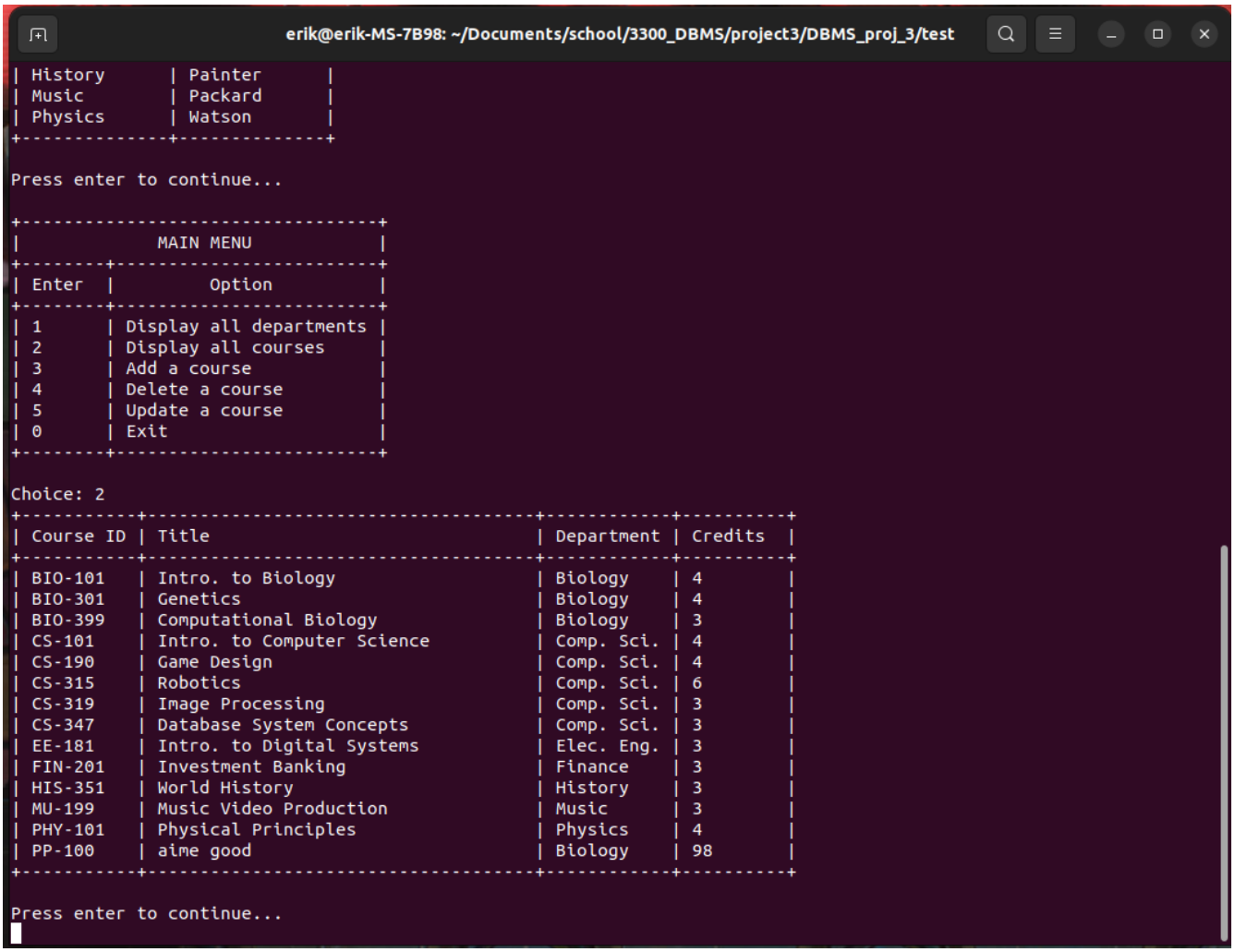
Upon successful login, the user will see the main menu shown above. The user now has 6 choices.

Choice 1: Display all departments



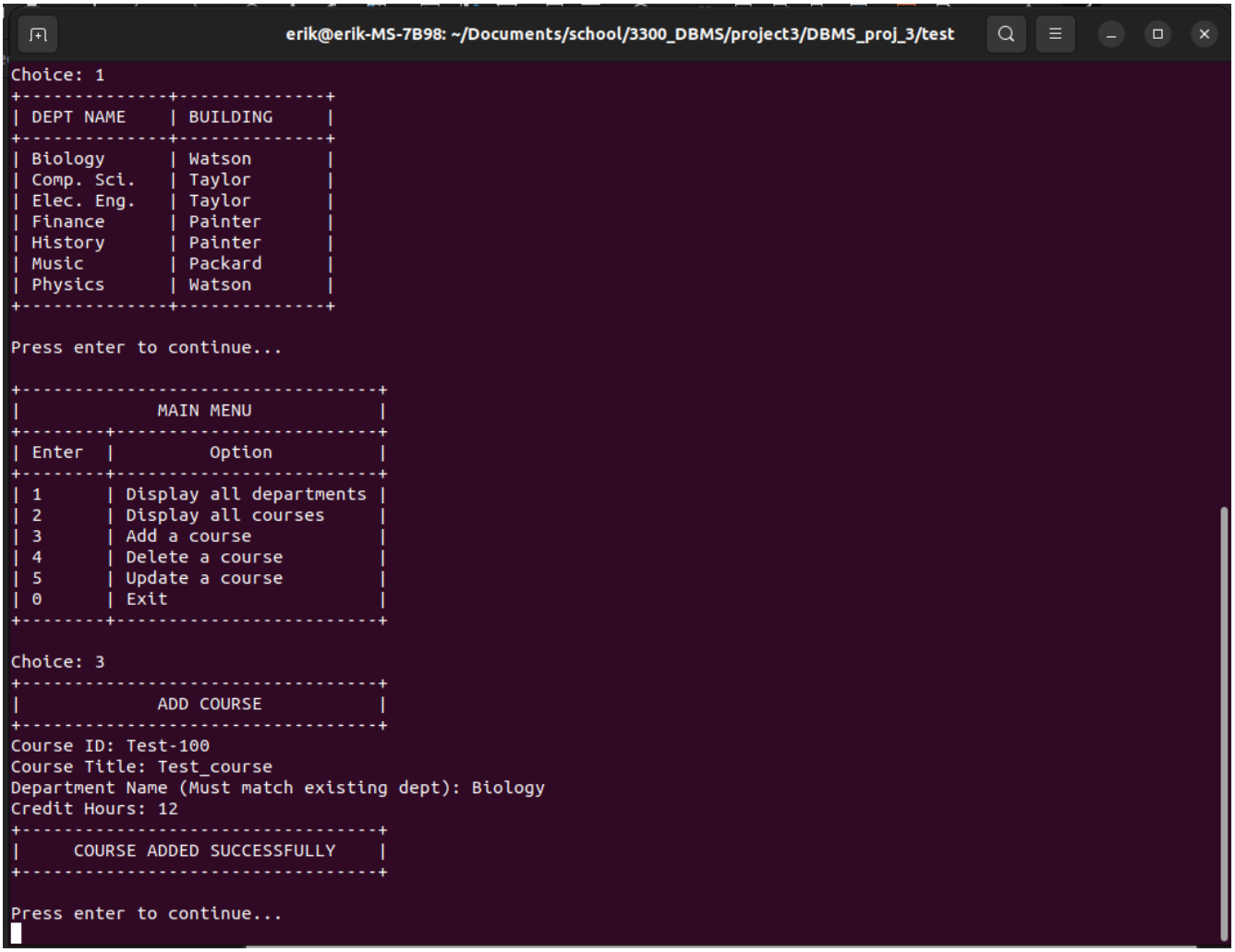
This option will show all the departments. Namely their name, and the building they are in.

Choice 2: Display all courses



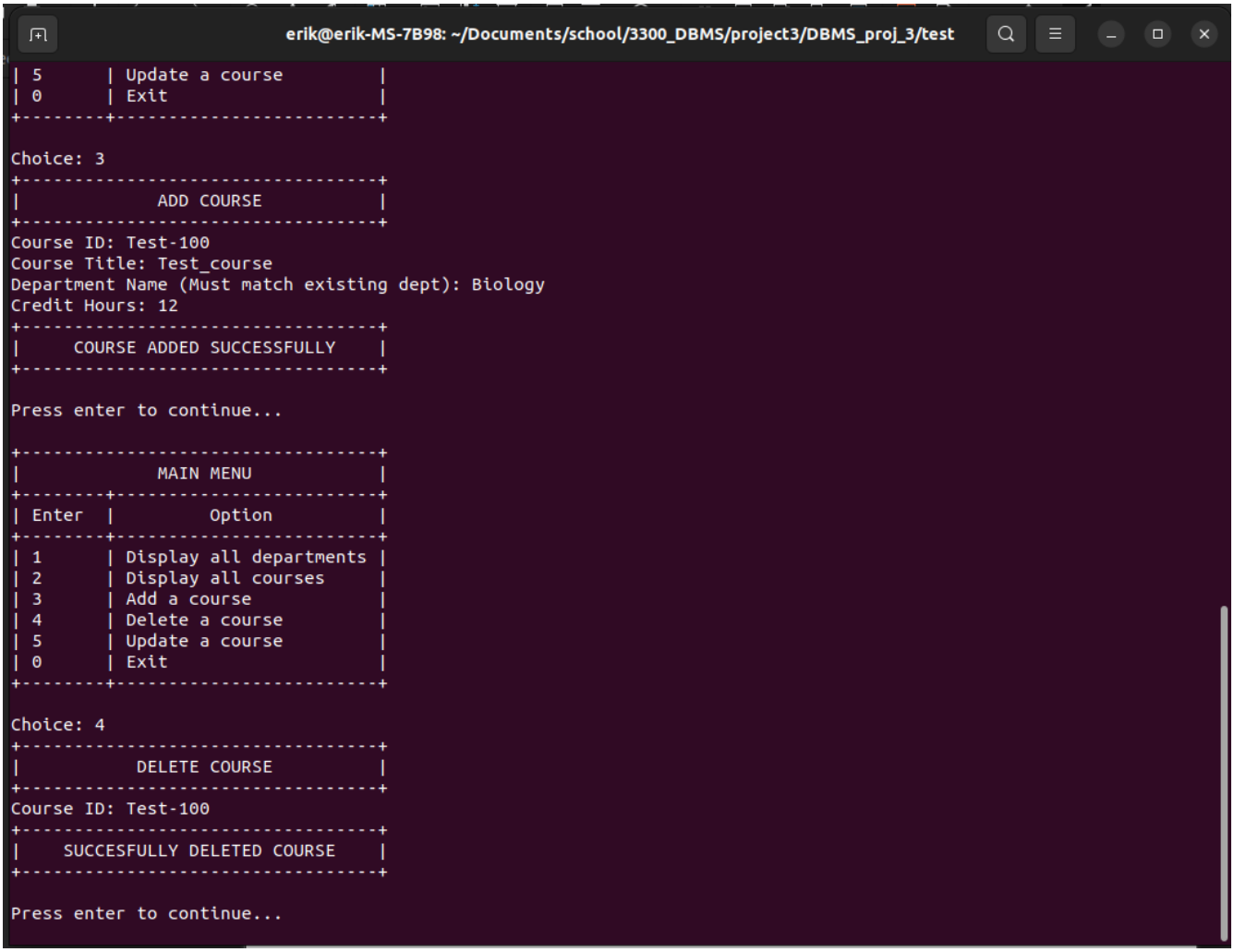
This option displays all info about courses.

Choice 3: Add a course



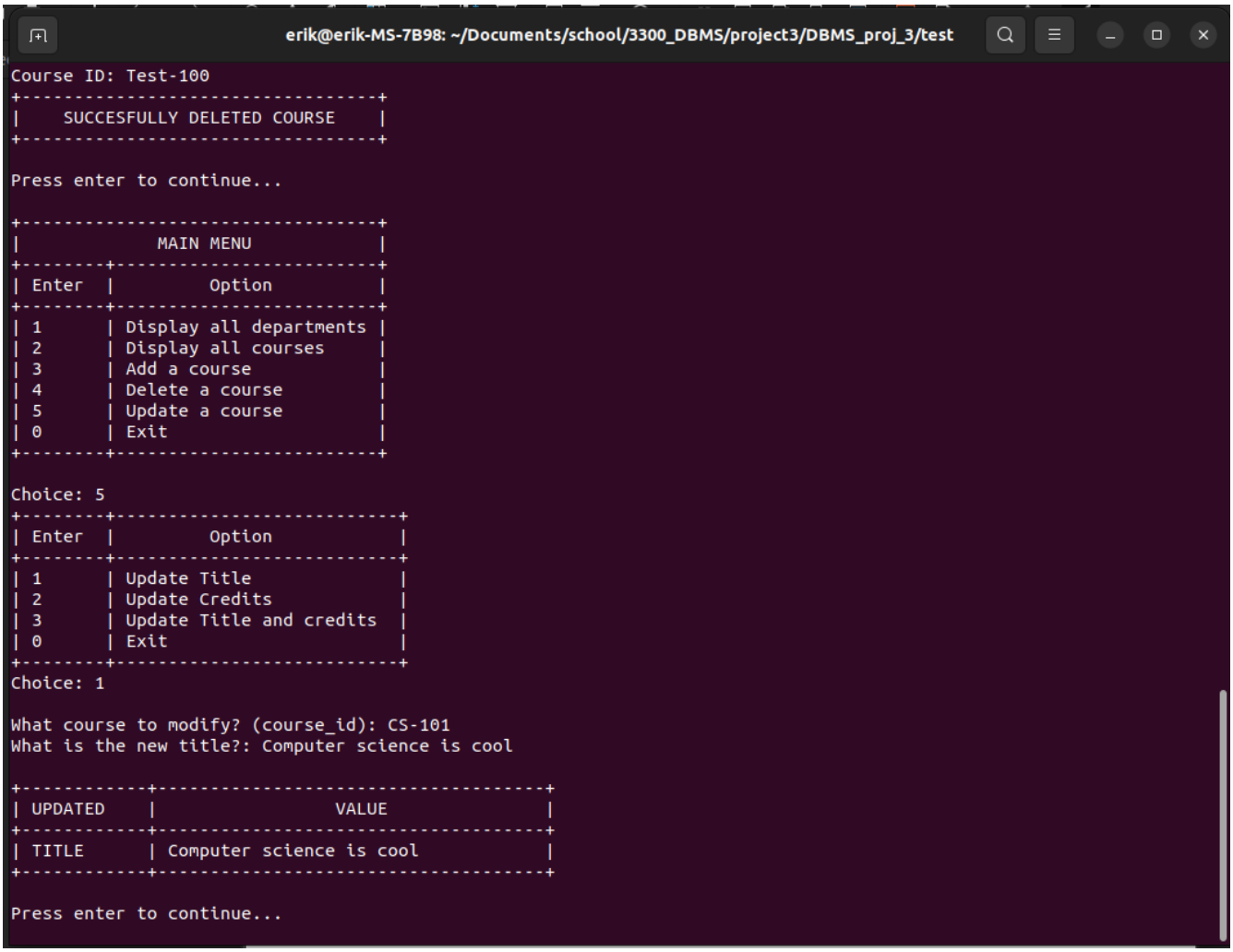
This option lets the user enter in all the course information, and enter the course into the DB. Another run of option 2 will show the added course.

Choice 4: Delete course



This option takes a course id and deletes the course with that ID from the database.

Choice 5: Update a course



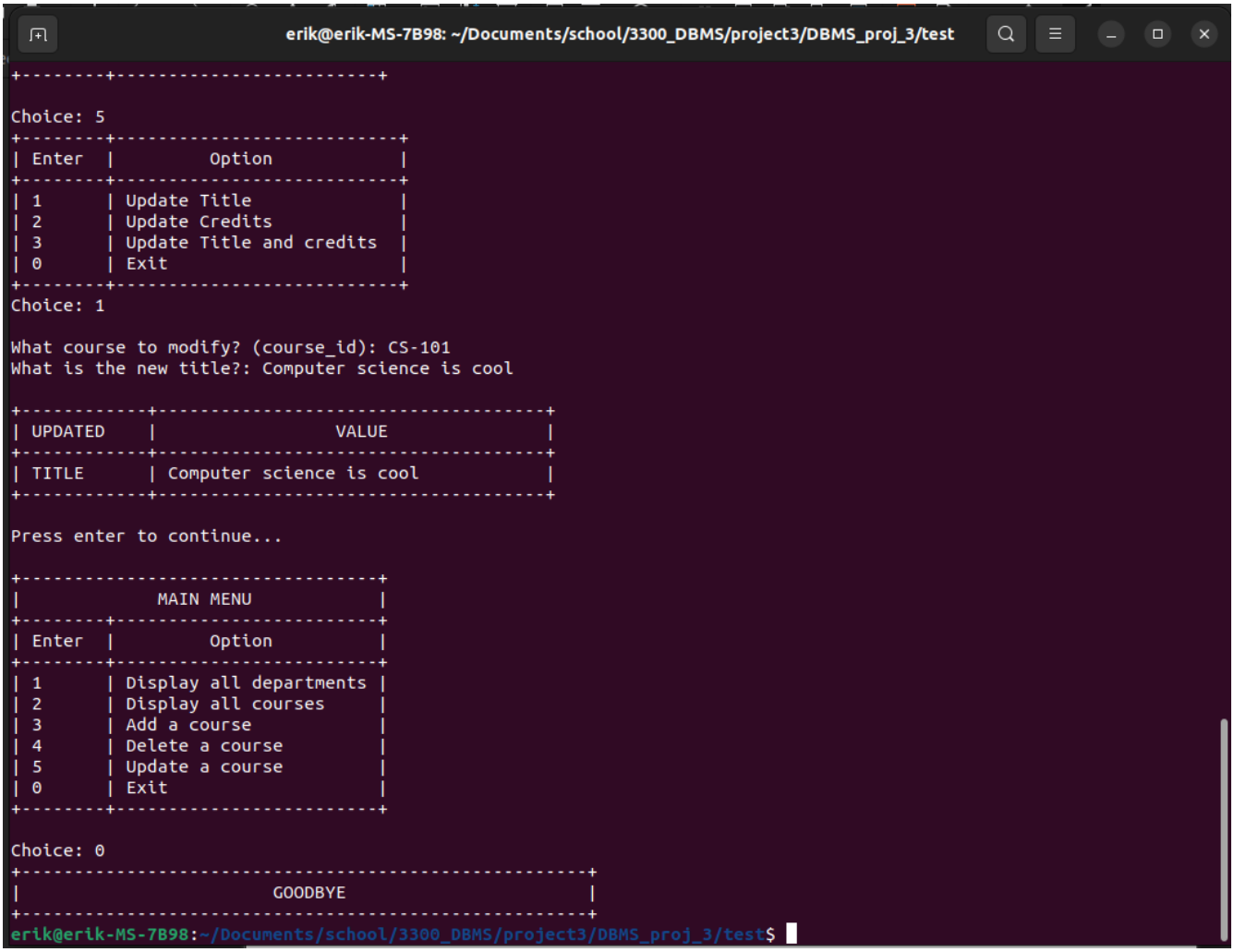
This option lets the user modify an existing course based on an ID. The user has 3 options.

- Update title
- Update credits
- Update both

The above picture is an example of the first option. You can also refer to the diagram above for an abstracted view of this process.

The other two options are very similar to this first one.

Choice 0:



Choice 0 is the way the user exits the application.

4. Assumptions

Some assumptions I made while building this have to do with the formatting of the data. I didn't account for the maximum length some of the column values may have. Depending on the database, the data formatting may be a bit wonky. Reasonable data looks good though.

I also assumed the order of the columns in the tables. If the order of the tables would change, the output of this program would change. It could cause some confusion if the data changed a bit. But if you are using the Silberschatz university schema, it should work fine.

* I tested this using the small relational insert file given to us in class. I did not run this against the large one.