

COSC 251- Lab #5

3/22/2017

Task: In MySQL, you will be setting up a database with three tables in it (Courses, Dept, and Enrollment), then completing the following 8 tasks. The code to set up the databases is at the end of the document.

1. List all the CS classes.
2. Print the total enrollment over all the classes.
3. Print the number of different classes.
4. Print the number of departments
5. List all the classes in the database, with the department name and the class name on the same line. E.g. CHM 111
6. List the name of the C classes so that they are output as "CSC111",etc.
7. List all the information in the database, where each classes appears on 1 line, along with its department, and enrollment.
8. List the classed with enrollment larger than 50, but formatted the same way as it is in question 4.

The code below is to create a database with 3 tables:

Courses:

Tables: ID, Name, deptID (3 columns, 7 rows)

Dept:

Tables: Id, Name (2 columns with 4 rows)

Enrollment:

Tables: Id, Count (2 columns with 7 rows)

Commands to create the tables:

```
CREATE DATABASE IF NOT EXISTS lab;  
USE lab;
```

```
CREATE TABLE IF NOT EXISTS `Course` (  
  `Id` int(1) NOT NULL auto_increment,  
  `Name` varchar(4) NOT NULL,  
  `deptId` int(1) NOT NULL,  
  PRIMARY KEY (`Id`)  
) ENGINE=MyISAM DEFAULT CHARSET=utf8 AUTO_INCREMENT=8 ;
```

```
INSERT INTO `Course` (`Id`, `Name`, `deptId`) VALUES  
(1, '111', 1),
```

```
(2, '112', 1),
(3, '250', 1),
(4, '231', 1),
(5, '111', 2),
(6, '250', 3),
(7, '111', 4);
```

```
CREATE TABLE IF NOT EXISTS `Dept` (
  `Id` int(1) NOT NULL auto_increment,
  `Name` varchar(3) NOT NULL,
  PRIMARY KEY (`Id`)
) ENGINE=MyISAM DEFAULT CHARSET=utf8 AUTO_INCREMENT=5 ;
```

```
INSERT INTO `Dept` (`Id`, `Name`) VALUES
(1, 'CSC'),
(2, 'MTH'),
(3, 'EGR'),
(4, 'CHM');
```

```
CREATE TABLE IF NOT EXISTS `Enrollment` (
  `Id` int(1) NOT NULL auto_increment,
  `count` int(1) NOT NULL,
  PRIMARY KEY (`Id`)
) ENGINE=MyISAM DEFAULT CHARSET=utf8 AUTO_INCREMENT=8 ;
```

```
INSERT INTO `Enrollment` (`Id`, `count`) VALUES
(1, 40),
(2, 15),
(3, 10),
(4, 12),
(5, 60),
(6, 14),
(7, 200);
```