

Lab #7 - SQL

- Part 0
 - Create a new folder for Lab 7 in your websys folder, and confirm that it is being served by Apache. At this point, or very soon, you should have at least 1 virtual server pointing to an index.html page in your websys folder, being served as a virtual host on your web server.
 - Ensure that you have a browser plugin capable of debugging JavaScript (you should be familiar with setting breakpoints and watch variables from earlier labs). If you are stuck with this, ask a team member, TAs, or myself.
- Part 1
 - in phpmyadmin or the command line: Create a database named **websyslab7**.
 - Create a table named **courses**. It should contain
 - crn (int 11, primary key)
 - prefix (varchar 4, not null)
 - number (smallint 4, not null)
 - title (varchar 255, not null)
 - collate should be **utf8_unicode_ci**
 - Create a table named **students**. It should contain
 - rin (int 9, primary key)
 - rcsID (char 7)
 - first name (varchar 100, not null)
 - last name (varchar 100, not null)
 - alias (varchar 100, not null)
 - phone (int 10)
 - collate should be **utf8_unicode_ci**
- Part 2
 - Using these tables, perform the following:
 1. Add address fields (street, city, state, zip) to the students table
 2. Add section and year fields to the courses table
 3. CREATE a grades table containing
 - id (int primary key, auto increment)
 - crn (foreign key)
 - rin (foreign key)
 - grade (int 3 not null)
 4. INSERT at least 4 courses into the courses table
 5. INSERT at least 4 students into the students table
 6. ADD 10 grades into the grades table
 7. list all students in the following sequences; in alphabetical order by rin, last name, RCSid, and firstname
 8. list all students rin, name and address if their grade in any course was higher than a 90
 9. list out the average grade in each course
 10. list out the number of students in each course
- Receiving credit
 - Export the structure and content of your database and tables to a text file using phpmyadmin.
 - After entering each command to the SQL server (via phpmyadmin or command line), copy your command and output and paste into a document (word, text, etc) after an entry for each question number and description.
 - As normal, there should be a **readme** file included which explains your observations/comments/assumptions from this lab.
- Submission
 - **Zip** up your lab 7 folder ...
 - Rename it to **websyslab7-yourname-yourRCSID.zip**
 - **Submit** it to LMS
- Rubric/Grading
 - Part 1 10 Points
 - Part 2 20 Points

