

# CS 340 Project

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## Overview

You will be making a database driven website using HTML, PHP and MySQL. HTML is a markup language used for laying out your website. You may work in pairs. PHP is a server side scripting language allowing content to be generated when the page is loaded. PHP will use a MySQL database to store the information that is used to populate fields on the website. Your database should have at least 4 entities and at least 4 relationships, one of which must be a many to many relationship. **It should be possible to add entries to every table (although it is fine to have tables prepopulated with data) and every table should be used in at least one select query. If you have complex SELECT queries that feature things like NOT IN, aggregate functions then you don't need the deletes and updates.**

## The pieces

### Outline (5%)

Give me a paragraph or two explaining your database content. If it is about auto dealerships, tell me what goes on at the auto dealership and why it would be interesting to track that data.

### Database Outline in Words (5%)

Tell me how the data is *supposed* to work. This is similar to the description I gave of the BSG database. What constraints should be in place. What tables are related to what other tables. A lot of the grading will be based on if things match this description of your database so make sure it is complete. If you say a constraint exist and you don't enforce it, that is incorrect. If you enforce a constraint you don't describe, that is incorrect.

### ER Diagram of Database (10%)

This diagram should capture, as best as possible, all of the constraints and components of your database outline.

### Database Schema (10%)

This should capture every attribute of every table. Additionally it should show every foreign key reference used in the database.

### Table Creation Queries (10%)

I want to see the queries your ran to build your tables. These should not be in any of the website code because you should not be dynamically building or deleting tables.

### General Use Queries (30%)

I want to see all of the queries that will be used to select, update, add or delete data. Because many of these will be based on user input, use square brackets to act as place holders for variables that will be

user provided. For example, if I were going to query based on employee salaries, I might have a query like this:

```
SELECT salary FROM employee WHERE salary > [salaryInput ];
```

Another example

```
INSERT INTO employee(name, age) VALUES ([user],[name]);
```

## **HTML (10%)**

All of the needed forms and buttons should be present to allow me to perform all of actions required of the database. This is graded on if the functionality is there. Not if it looks pretty.

## **PHP (10%)**

You should be using the mysqli class to perform your database operations. It should be clear what all the code is doing. It should produce no errors.

## **Style (10%)**

This is a catchall for if you have bad coding style, don't comment, have illegible diagrams etc.

## **Evaluation of Work In Progress**

If you get us queries by the end of Week 7 we will give you ungraded feedback on those queries. These would be your queries to create your tables, select, add, update etc.

If you get us your HTML by the end of week 8 we will give you ungraded feedback on the code and let you know if we see any major problems.

If you get us your PHP by the end of week 9 we will give you ungraded feedback on the code and let you know of any major concerns.

You will need to email your work to me, and I will forward your email to a specific TA. The TA will look at your work and will give you ungraded feedback.

The project is due at the end of week 10