

Specification	File where it can be found	Number line in file	What the task accomplishes
The project should be written using PHP and MySQL.	__init__.py	8	login to mysql localhost via sqlalchemy
You may add css and/or javascript, but the emphasis in this course is on database programming.	experiment_home.html	16	writer script to include search bar to search experiments by objective
Include at least one structural change to the database using DDL. (Create, Alter, Drop)			If we were to include the user Principle Investigator (see ppt), we would have an opportunity to create new tables that the PI would use but the other users would not.
Provide the INSERT SQL for initially populating the database.	LaboratorydatabaseDDL.txt	1	DDL to initially enter data into mysql via phpmyadmin.
Include at least one INSERT that will occur during the execution of the application. This will most likely be as the result of a transaction or user that should be added to the database.	routes.py	120	Add new experiment to the database
Include at least one UPDATE.	routes.py	137	Update Experiment fields for given experiement_ID
Include at least one DELETE.	routes.py	157	Delete experiment from the database
Include at least one simple SELECT SQL statement.	routes.py	166	Queries the Reagent table for all (SELECT *)

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Include at least one SELECT using a compound condition.	routes.py	107	Product uses where condition to match rows with given experiment_ID
Include at least one SELECT using an aggregate function.			For this particular approach, we focused on the scientist (see ppt) not the principle investigator. The PI would be interested in aggregate values.
Include at least one SELECT using a compound condition.			We did not have a compound condition because any joins or queries we made only required one condition. Any queries requiring compound conditions would relate to the Personal Investigator
Include at least one JOIN query. This can be an inner or outer join. It will be probably be an inner join.	routes.py	107	Joined Product table with Experiment table on experiment_ID
Include at least one subquery.			We did not have a subquery because of the principle investigator is the user interested in this sort of data.
Use a form to collect user data. Pass variables to the next page (or postback) using POST.	routes.py	110	Sends the experiment_ID, experiment, date, product, reagent, equipment to the experiment.html page
Use one GET to pass data to another page.	routes.py	191	Send experiment_ID to form on GET to validate there is no existing product related to that experiment_ID

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Populate a field on a form or table from the database.	routes.py	147	update form with experiment table's experiment_Objective
Check for empty data fields.	forms.py	78	Required to input experiment_ID
Login and password. Extra credit if you use bcrypt.	routes.py	52	checking to make sure user is authenticated.
Implement referential integrity. Demonstrate what happens when it is violated.	forms.py	85	ExptForm checks if there was an existing experiment with the same experiment_ID as the one the user entered.
Use an appropriate structure for your project package	__init__.py	1	Kept basic structure from Lab4

Excellence points:

7. Nav-bar menu dropdown option, implemented in layout_laboratory.html. Line 35-44.
8. Implemented time at the top of each page in layout_laboratory.html. Line 102-105. Also implemented search bar to search through the experiment objectives in experiment_home.html. Line 16-25.