

# CSE 5335 Project #2

## Overview

This is the second programming project for CSE 5335. The purpose of this project is to expand on the first project by introducing a SQL or NOSQL data storage tool.

The project will be due on April 26th at 11:50PM.

## Objectives

To successfully meet the objectives of Project 2, your submission must include the following:

- Create a web page served by your server-side framework -- you may use any web server framework acceptable for Project 1 -- that loads your browser-side, Javascript framework -- again, you may use any browser framework acceptable for Project 1. **(20 Points)**
- Add a SQL or NOSQL data storage option to your Heroku server from Project 1. Research and select a source of data on the Internet from which you can extract at least 100 data elements. The data elements must have some kind of primary key and at least one attribute that can serve as a secondary query criteria. **(20 Points)**

You may use any persistent data storage tool that is supported by Heroku. Suggestions include:

- SQL -- there is a free Heroku Postgres option
- Redis -- there is a free Heroku Redis option
- MongoDB -- there is a free MongoLabs option

Example web services are as follows:

- <http://www.omdbapi.com/>
- <http://www.data.gov/developers/apis>
- <http://www.census.gov/data/developers/data-sets.html>
- <http://aws.amazon.com/datasets>

- Using the browser-side, Javascript to (a) make at least 100 AJAX-style requests to your server-side framework (b) in 0.5 second intervals where (c) each request load a single record from a NOSQL database, and (d) modify your web page to display the data from each record. **(40 Points)**

**EXTRA CREDIT:** For additional points:

- Add animation to the display of the newly arriving data **(10 Points)**
- Display only 20 records at a time, removing old records as new ones arrive **(10 Points)**
- You will include a README.md file (note that this file extension implies the following syntax available for formatting -- <http://en.wikipedia.org/wiki/Markdown>) as part of your server installation answering the following questions **(20 Points)**:
  - What aspect of the implementation did you find easy, if any, and why?
  - What aspect of the implementation did you find hard, if any, and why?
  - If you were to use these technologies professionally, what would be your biggest concern?

## Submitting Your Project

As with the first project, your code should be saved in a private GitHub repository named "cse5335-<NETID>-2". And you should add the class GTA and me (emmons-uta) as collaborators for both the Github repository and the Heroku server.

## Note Concerning Collaboration

The active Open Source communities for web development mentioned above all heavily leverage the knowledge and experience of its members to get things done. I have no problem with students collaborating to help each other figure out techniques and strategies for implementing the project deliverables, but the size of this project is such that each student should be able to implement the steps individually. I will be performing random tests for uniqueness on the contents of your project upload files. Duplicate submissions will receive zero points.