

COMP 4513 Web III: Advanced Web Development

Assignment #4

Overview

Now that you've written some small jQuery and PHP applications as well as deployed two content management systems we're ready to move on to a more realistic, real world scenario.

Your group will create a website which presents a **large set of information** to the user through a third party API (such as Google maps, image generation, or other framework). The data can be publically accessible, or crawled using your own purpose-built crawler.

You will get your idea validated by the instructor prior to proceeding.

In general all applications should:

1. **Include a crawler** which collects raw data for your application
 - a. *If you are using publically accessible data, you must create a publically accessible web service (with published API – using REST) in place of the crawler.*
2. **Have an indexer which builds indexes** from the data so that you can quickly search
3. **Let users “search”** the “results”.
4. Provide some **value-added analysis** of the data being collected.
5. Include the ability for users to **register and save personal preferences**
6. Include an interactive, **“social” aspect to the site**. Some method of communicating/sharing/working together (i.e. commenting/rating)
7. Include an **administrative web backend** with meaningful administrative options. This does not need to be woven into your CMS.
8. The public portion of your solution output will be **woven into your platform of choice** from Assignment 3. You must write a re-usable plugin.
9. Look and feel professional, and work on many platforms.
10. **Install and configure a web usage package** for demonstration at the end.

Learning Objectives

- Perform analysis on a large data set
- Create a web service OR create a web crawler that collects data.
- Understand and apply search engine optimization techniques.
- Understand web usage statistics.
- Apply search engine crawler best practices
- Integrate third party API's into a web site.
- Integrate your web application as a plugin for your CMS.
- Utilize agile software development methodologies
- Install and configure web analytics package to analyze your web traffic.
- Secure your live site, applying security practices.

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Deliverables

1. Your live, functioning php based application, running on your own domain inside your CMS.
This will be demonstrated live in class.
2. A document summarizing your plugin, as well as a summary of the project, including a description of front and back ends. (~5 pages)
3. A personal reflection on the project and group work (<1 page).

Due Date:

Final Application, Document & Presentation: **December 2, 2014**

Final reflection document: **December 2, 2014**

Weight

25%

Assessment Strategy:

The assignment has multiple deliverables, and each portion will be weighed as follows:

- (20%) Final Document
- (10%) Presentation
- (65%) Final assignment.
- (5%) Reflection document

A rubric for each deliverable will follow, to provide clarity about what is expected.