Web Technology Research Project

CPS 353: Internet Programming
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Last Revised: October 2013

Introduction

Right now, there are literally hundreds of useful web technologies available, with more being created and released each day. For this assignment, you will research and report on one of these web technologies that is of interest to you and that we are not covering in class. Specifically, you will prepare and deliver the following:

- A short written report on the technology.
- A brief oral presentation on the technology.

This project will count for 10% of your overall course grade. Details on these requirements are provided below.

Selecting a Topic

Your first task in this assignment will be to choose the web technology that you will report on. Your selection must be submitted to **and approved by** the professor by the date indicated at the end of this document.

Keep the following criteria in mind as you consider the topic for your research.

- Select a technology that you are curious about, but are not too familiar with. Your interest will spur your learning and creativity as you research and prepare your project.
- Limit the scope of your topic to something that can be summarized in a 2-4-page report and overviewed in a 10-minute presentation. In terms of extremes, detailing the intricacies of the Ruby on Rails *link_to* helper function is too small a topic, while conducting a thorough exploration of web security is too large. Your topic should occupy a happy medium between these two poles. Ask the professor if you are unsure of a topic's scope.
- You have a good deal of latitude in your choice of web technology. Your topic may be a programming language, database, framework, platform, website, service, development approach, design pattern, or tool that relates to Internet programming or web development.
- Be sure to email your topic proposal to the professor well in advance of the due date given below. This will ensure that you have adequate time should you need to change or refine your topic.

Each student must choose, research, and report on his or her own web technology. You may not work together with other students on this project.

Research Report

Your written web technology report should not be structured as a term paper. Rather, it should be a succinct and focused overview of the technology, which clearly communicates its salient points. (You might borrow some of the formatting components used in this document for your report – i.e. clearly labeled sections containing short single-spaced paragraphs and bulleted lists.)

Your written report should include the following elements.

- A high level introduction summarizing the purpose and major benefits of the technology.
- Some history and background on the technology – the *who* and the *why* behind it.
- A brief technical overview explaining how the technology works, what it is used for, and what it depends on.
- At least one example scenario of the technology's usage, with specific details about how it is configured, deployed, and utilized in this setting.
- Your personal evaluation of the web technology including what drew you to it, what you see as its strengths and weaknesses, whether or not you would actually use it, and why or why not.
- An informal bibliography of the resources you used to research the technology, as well as information about where readers can learn more about and acquire the technology.

Oral Presentation

On the last day of class, you will give a short live oral presentation about your chosen web technology to your classmates and instructor. You should use this presentation to clearly explain and demonstrate your technology. Keep the following in mind as you prepare your presentation.

- Your presentation should be about 10 minutes in length, and should go no longer than 12 minutes.
- You are encouraged to incorporate audio/visual components into your presentation as appropriate. The exact nature and scope of these elements is up to you.
- Your presentation should include a demonstration of the technology (live if possible).
- The information you deliver in your presentation will very likely overlap with the material in your written report. However, the contents and structure of your presentation should be somewhat distinct from your report. Do not simply copy your report into a slide deck or vice versa, but organize each to communicate effectively in its respective medium.
- You should leave a few moments at the end of your presentation to take questions from your peers (and be reasonably prepared to answer them).

Turn In

The following schedule lists the due dates and deliverables for this project.

- **Wednesday, November 6** – Your web technology must be selected **and approved by the professor** by the start of class.
- **Wednesday, December 11** – Your written report and presentation materials (i.e. slides, notes, etc.) must be submitted to the professor via email by the start of class.
- **Wednesday, December 11** – You will deliver your oral presentation during the final session of class.