COMP 4513 Web III: Advanced Web Development
Assignment #3A

Overview

This assignment is intended to simulate practical web development in response to client needs which makes up a large part of professional practice. You will complete this assignment in groups, while submitting your own personal assignment which complements and supplements this work (3B).

A web presence is a necessity for small businesses to develop a professional brand. However, many businesses have a limited IT budget, and even more limited knowledge of the web - meaning they contract website development to third parties. Your group will simulate one of those third parties.

Your web application will reside on its own domain, necessitating that you group chooses an appropriate hosting package, and configure all aspects of DNS correctly. You must also setup and implement a basic backup strategy to ensure recovery is possible if the site is hacked/corrupted. Email should also be configured to work correctly.

Companies require websites which look professional, are easily maintainable, and build business through traffic originating from search engines. In response to those needs (and others), open (and closed) source web content management systems (CMS) have been developed to handle most of the features users have come to expect from websites. Wordpress, Drupal, Joomla and others can be deployed quickly, but without some knowledge of HTML, CSS and Php one cannot achieve a unique, professional web experience.

Therefore your group will develop 2 versions of 1 website, using 2 different content management systems (one of which must be WordPress). Both websites will require all of the following features.

- Top level pages, embedded in the site's navigation for:
    - Home
    - Contact Us (form)
    - Testimonials (with ability to take new submissions)
    - Links
- As well as another section, which will be an ongoing Blog. Each group member must add at least one (relevant) post.
- Install at least 1 plugin for each group member.
- **Content optimized for search engines.**

The "theme"/sponsor of your site is up to you, but must be approved by your instructor, no later than October 31.

Learning Objectives

- Understand and apply search engine optimization techniques.
- Evaluate and choose a hosting package to satisfy their needs.
- Configure and use email from your web server
- Configure and understand email principals, including MX records, spam and opt in/out policies.
- Understand the basic principles of LAMP administration
- Evaluate different content management systems.

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- Articulate and present your findings to a peer-group.
- Configure and Install a content management system from scratch.

Deliverables

- 2 sites, each residing on a **distinct sub domain** of your primary domain.
- **A presentation** comparing the 2 content management systems. This presentation must include:
  - A section for each CMS, describing:
    - Technical requirements
    - Strengths
    - Weaknesses
    - Way of handling "workflow".
    - Way in which it helps an administrator with Search Engine Optimization (SEO)
  - A section describing why you chose one CMS over the other.
  - A section with a brief overview of your site's plugins.
  - A description of the theme used in the CMS.
  - Accounts created for each group member on each CMS
- **A document** summarizing the setup and maintenance of your group's website. This document should allow someone to take over the maintenance of the website and contain details on at least the following:
  - Domain Registration
    - A brief summary of your domain's registration details
  - Domain Name System
    - A brief summary of the important entries in your DNS record
    - A copy of your DNS record
  - Email
    - A summary of how you set up email on your domain.
  - Database Backup and Disaster Recovery Plan
    - A summary of how / when you automatically backup the website's database.
    - Descriptions of how to manually load/export the database
    - A walkthrough of the steps required to recover.
  - Search Engine Optimization
    - What keywords are you optimizing for
    - What SEO strategies were applied
    - What SEO techniques should be used in the future

Weight - 5%

Due Date – November 7 @ 15:30. Presentations begin Nov 7.

Late Policy

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No late submissions are allowed. Any submissions received after the due date will be ignored, and you will receive a 0.