

An Introduction to Web Development & Design

Website Portfolio Project

By the end of this week your goal is to learn as much as possible to enable you to create your own portfolio website. This website will feature pages such as “About Me”, “Portfolio”, “Contact Me” and a home page.

Aim to spend each morning reading and doing tutorials and each afternoon putting your new skills into practise to build your site.

Stage 1 – Planning – Day 1

You should begin by drawing a sitemap and some wireframe diagrams to determine the structure and layout of your web pages and what pages you want the site to feature.

Stage 2 – Web Design – Day 2

Next you will need to learn some web design techniques in order to turn your wireframes to life.

Once you are happy with the design you have made, you will need to learn how to slice your design ready for stage 3.

Stage 3 – Web Development – Day 3 & 4

Write the HTML and CSS needed to turn your design into a working web page.

Stage 4 – Testing – Day 5

Make sure the HTML validates with the W3C validator and also perform some browser testing to make sure it displays as intended in different web browsers such as Firefox, IE, Safari, Opera and Chrome.

Resources:

Wireframes - <http://www.uxmatters.com/mt/archives/2007/03/wireframing-with-patterns.php>

Sitemaps and wireframes - <http://www.utexas.edu/learn/designprocess/structure.html>

10 Steps to the perfect portfolio site - <http://www.smashingmagazine.com/2009/02/26/10-steps-to-the-perfect-portfolio-website/>

Day 1 - Introduction to Web Design

The aim of today is to get a good grasp of using a graphics package such as Adobe Photoshop or Fireworks. Learn some techniques for creating effects used in modern web design such as gradients, patterns and fonts.

Resources:

How to design a website - http://www.garysimon.net/webdesign_tutorial/1

Fireworks web design tutorial - http://www.entheosweb.com/website_design/fireworks_tutorial.asp

Design the perfect website using Photoshop -

<http://www.webdesigndev.com/photoshop/photoshop-web-design-tutorial>

Day 2 - Introduction to HTML and CSS

By the end of today you should have a fairly good understanding of HTML, and be able to write simple web pages using notepad and validate your HTML. You should also be able to write some CSS to style your web page.

Resources:

HTML tutorials - <http://www.w3schools.com/html/default.asp>

CSS tutorials - <http://www.w3schools.com/css/default.asp>

W3C validator - <http://validator.w3.org/>

Day 3 - Understanding web servers, web browsers and HTTP and FTP

Tasks:

1. Draw a diagram explaining how a web server and web browser communicate.
2. Find out what “stateless” means in relation to HTTP, what can we use to make a website “stateful”?
3. How many types of web server are there? What is their market share?
4. What are the most popular web browsers? What is their market share?
5. What is browser testing and why should we do it?
6. How would you upload your website to a web server?

Resources:

How web servers work – <http://www.howstuffworks.com/web-server.htm>

Web Servers – http://en.wikipedia.org/wiki/Web_server

Web Browsers – http://en.wikipedia.org/wiki/Web_browser

HTTP – <http://en.wikipedia.org/wiki/Http>

FTP – <http://en.wikipedia.org/wiki/Ftp>

Firefox – <http://www.mozilla-europe.org/en/firefox/>

Opera – <http://www.opera.com/browser/>

Safari – <http://www.apple.com/safari/>

Internet Explorer – <http://www.microsoft.com/windows/internet-explorer/default.aspx>

Chrome – <http://www.google.co.uk/chrome>

Cross-browser testing – <http://www.smashingmagazine.com/2007/10/02/browser-tests-services-and-compatibility-test-suites/>

Day 4 – Introduction to server-side and client-side programming

Tasks:

1. What is client-side code? Give example of what it can be used for and what languages you write it in.
2. What is server-side code? Give examples of platforms and programming languages used to write server-side code.
3. Learn some JavaScript to add to your portfolio project

Resources:

JavaScript tutorials – <http://www.w3schools.com/js/default.asp>

PHP tutorial – <http://www.w3schools.com/php/default.asp>

ASP tutorial – <http://www.w3schools.com/asp/default.asp>

Client-side scripting – http://en.wikipedia.org/wiki/Client-side_scripting

Server-side scripting – http://en.wikipedia.org/wiki/Server-side_scripting

Day 5 – Overview of databases and XML

Tasks:

1. What is a database?
2. What types of database are used for websites?
3. Name some leading relational databases
4. What is XML?
5. How is XML different to HTML?
6. Create an XML schema to hold data about your favourite music CDs

Resources:

The Database – <http://en.wikipedia.org/wiki/Database>

What are relational databases – <http://computer.howstuffworks.com/question599.htm>

What is XML – http://www.w3schools.com/XML/xml_what_is.asp