

Internship Projects

Final Exam Study Guide

General Concepts

Describe the connection between two computers using **HTTP** and how **sockets** are used to route **requests** and **responses**.

Explain the difference between **client side** and **server side scripting**. When is it best to use **client side**, **server side**, or both?

In **HTTP**, what is the difference between **GET** and **POST** form submission? Where is the data stored during transmission from **client** to **server**?

Requirements and Design

Diagram the **development process**.

Describe the interchange between customers and developers during the **requirements phase**.

Understand the purpose of a **question list** and a **confirmation letter**.

Explain the concept of a web **page layout** and a **site map**.

Requirements and **design** answer different questions. Discuss what those questions are.

Cascading Style Sheets

Explain the purpose of **CSS**.

Describe the difference between **in-line** and **linked style sheets**, and when a developer should use one form or the other.

Understand what is a **CSS class** with the **dot operator** (e.g. **P.menu**) and a **pseudo class** with the **colon operator** (e.g. **A:hover**).

Scripting Languages

For both **JavaScript** and **PHP**, be able to explain the following:

- Starting and stopping **script processing** and **processing order**.
- **Deferred** and **immediate execution**.
- **Loose typing** and **type juggling**.
- **Expression** and **statement syntax**.
- **Variable** declaration.
- **Arrays** and **functions**.
- **Global** and **static variables**.

JavaScript Specific Questions

Review the following examples and understand the **JavaScript code** fully:

<http://10.10.0.15/~web2008/js/calc.htm>

<http://10.10.0.15/~web2008/js/theButton.htm>

Understand the following events and functions:

- `alert()`
- `confirm()`
- `onClick`
- `onLoad`
- `prompt()`
- `substring()`

Write code to retrieve the contents of the following items:

- `Form fields.`
- `Location bar.`

PHP Specific Questions

Review and understand the following document and its examples:

<http://10.10.0.15/~web2008/php/phpNotes.htm>

Write `PHP` code to `process` a `web form`.

Write `PHP` code to `connect` with and `query` a `MySQL database`.

Write `PHP` code to `transfer data` between `pages` using the `$_SESSION` variable.

Why does `session_start()` need to be `executed` before any `HTML` output is written?

What is a `web cookie`? What does a `cookie` contain?

Where are `cookies` referenced in the `HTTP GET request`?

Relational Databases and SQL

Memorize the `CREATE TABLE`, `SELECT`, `INSERT`, `UPDATE`, and `DELETE` statements.

Describe the differences between and purposes of a `primary key`, `super key`, and `column index`.

Explain what a `relation` is.