**Final Exam Material:**

**Topics:**

-HTML forms

-JavaScript

-JS Libraries and Plugins

-Mobile Design

-Media queries

-Web site traffic

**HTML Forms:**

-What they do: pass info to a program or script that processes the information (not send email or fill database)

-2 required attributes

-action=”name of script that process info”

-method=”way data is handed off into script” (can be “post” or “get”)

-To create textbox: textarea (different from an input)

-Checkboxes: user can select multiple selections from a list

-Radio buttons: user selects one thing from a list

-fieldset: groups form controls together (if they make sense to be together)

-To code label for a fieldset: use legend

-For input field with type password: doesn’t encrypt anything. It masks the screen while typing (uses asterisks or dots instead of character)

-input field with type submit: used to submit a form

**JavaScript:**

-OO scripting language

-Joint venture b/w Netscape and Microsystems

-Not same as Java

-Can put JS in 3 places in html documents

-External file linked to html document using script tag

-Write JS in your html document in between script tags

-Insert JS in an html element as a JS event

-What can JS do?

-Runs on a user’s device

-Can only take advantage of capabilities on a user’s device

-It can’t do stuff on the server (can’t write email, or access database)

-What’s a function?

-Uses keyword function

-Block of reusable JS code

-What’s a variable?

-Construct that contains piece of data to do something with it later

Popup boxes:

-alert 🡪 pops up message with 1 button that says “ok”

-confirm 🡪 can have more than one button, such as “yes” and “no”

-prompt 🡪 pops up box where user can type information and then click “ok”

DOM:

-Way that we define every object and element in a webpage

-Includes html elements, all text, stuff in the head such as the title tag, the doctype, the browser, the scroll bars, the file itself (such as the name and timestamp of the file)

JS event:

-Triggered by some action in the web browser

-Examples:

-JS code for hover event: onmouseover

Clue that something’s a method:

-A name plus parentheses such as myMethod()

**JS Libraries and plugins:**

Downside:

-May be introducing bad coding practices and mistakes made by the developer that wrote the library

-Loading more code than you’re actually going to use 🡪 slows down website

Plugin:

-Library that depends on another library

JQuery:

-Most popular JS library

-Invented by some kid from RIT (John Resik)

**Mobile Design**

-Recognize code for media query

-In CSS: @media(max-width:720px;) (called a breakpoint)

-Responsive images

-Make sure there are no width or height attributes on the image tag in the html

-Use CSS to set its width using a %, not pixels

Natural/Normal document flow

-Content in the viewport is in the same order as is written in the html

-Normal document flow is mobile friendly

To adjust for different devices

-Just focus on the width of the browser

<meta name=”viewport”….>

-Sets the initial scale of the webpage to 100% based on the devices width

-For desktop browser this does nothing (happens normally)

-For smartphones, this fixes default settings of browser that apple initially made

**SEO (search engine optimization):**

-Search directory:

-Was first more popular than search engines

-Written by humans

-Search engine:

-Automated program to do what humans were doing

-Initially just counted keywords in html document (bad algorithm)

-Google fixed this: used inbound links to webpages to determine quality

-The more inbound links a webpage had to it, the better the webpage

SERP: search engine results page

-Webpage you see after performing a search using a search engine

<div style = “background-color: gray; color: gray;“> blah blah blah </div>

-Wouldn’t appear on webpage

-Called keyword stuffing

-Trying to trick search engine to increase search ranking

-Search engine penalizes it, if they catch it

Google analytics:

-Install a tracking code on each page of your website

-Determine what browsers, OS and countries are accessing your website

-Can’t get names or personal information of users

On/Off page SEO

-Used to increase search ranking of website

-On Page SEO

-Things that web developers can do in crease search ranking

-XML Site map: search engines use it to optimize their crawl of your website

-Off page SEO

-Things that other people do on other websites that will increase the ranking on your website

Definitions:

-Impression: every time a user views an advertisement on a SERP

-Click through rate (CTR): number of ad clicks/Number of impressions, represented as a percent

-Bounce rate: how quickly users leave your webpage: measured in time as a percent: high bounce rate means they are leaving very quickly