Lesson 1: The Web Development Process

CS 213: Web Programing
IT 214: Web Development

Large-Scale Project Development

- Large-scale projects are created by a group of people working together as a team.
- The job roles of project manager, information architect, marketing representative, copywriter, editor, graphic designer, database administrator, network administrator, and web developer/designer are usually needed for large projects.

Figure 1.1 - A team of web developers creating large-scale projects
Source: http://indodes.com/software-services/

Small-Scale Project Development

- For a smaller-scale project, one of the web developers may double as the project manager, web designer, graphic designer, database administrator, and/or information architect.

Figure 1.2 - A team of web developers in a small-scale projects
Source: http://www.smashstack.com/articles/there-is-no-i-in-web-development-team/

Project Job Roles

- Project Manager
- Web Designer
- Web Developer
- Database Developer
- Graphics Designer
- Information Architect
- Network Administrator
- Marketing Representative
- Content Manager
- Copywriter / Editor

Project Manager

- oversees the website development process
- coordinates team activities
- creates the project plan and schedule
- accountable for reaching project milestones and producing results
- must have excellent organizational, managerial, and communication skills

Source: https://cdl-2.workable.com/j/36DACCDE8B

Information Architect

- clarifies the mission and goals of the site
- assists in determining the functionality of the site
- defines the site organization, navigation, and labeling
- Web developers and/or the project manager sometimes take on this role.

Graphics Designer

• determines the appropriate use of color and graphics on the site

•creates logos and graphic images

• optimizes images for display on the Web

Source: https://www.istockphoto.com/photos/graphic-designer?excludenudity=true&sort=mostpopular&mediatype=photography&phrase=graphic%20designer

Database Administrator

- designs and creates databases
- create procedures to maintain databases (including backup and recovery)
- control access to databases

Source: http://www.itdegreesandprograms.com/it-careers/security-information-assurance/become-a-database-administrator

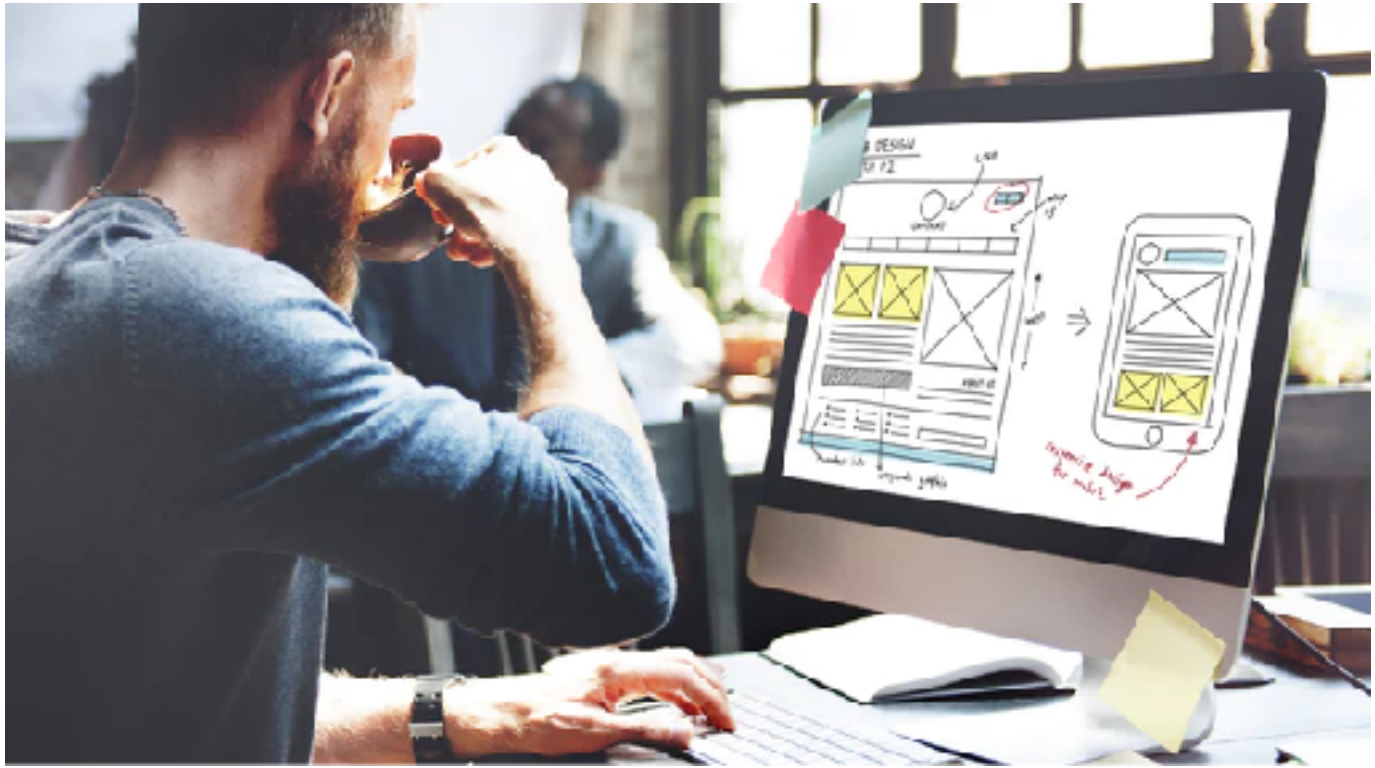
Network Administrator

- configures and maintains the web server
- installs and maintains system hardware and software
- controls access security

Source: https://www.planitplus.net/JobProfileImages/

Web Designer

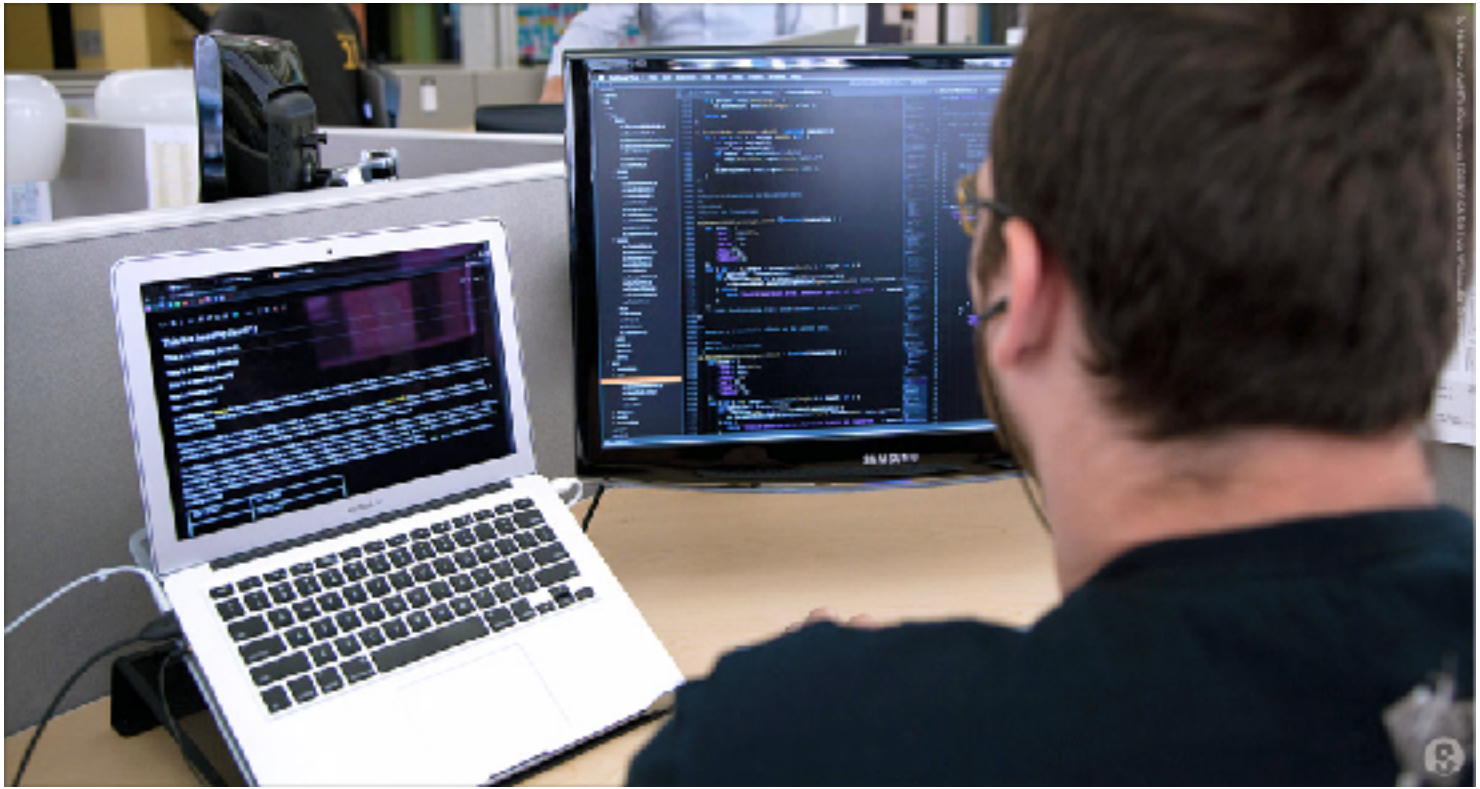
- writes HTML and CSS code
- fulfill some graphic designer job duties like determining the appropriate use of color
- designing wireframes and page layouts
- creating logos and graphics



Source: http://t3n.de/news/content-manager-aufgaben-gehalt-profil-802491/

Web Developer

- sometimes referred to as a web programmer
- writes HTML, CSS, and client-side scripting such as JavaScript
- writes server-side scripting such as Python or PHP



Source: http://geekwebdesigns.com/google-web-developer-job-much-offer/web-developer-survey-3/

Marketing Representative

- handles the company's marketing plan and goals
- works with web designers to create a web presence (look and feel) that aligns with the marketing goals of the organization
- coordinate the website with other media used for marketing

Content Manager

- participates in the strategic and creative development and enhancement of the website
- oversees changes in content
- skill set includes editing, copywriting, marketing, technology, and communications
- must be able to facilitate change

Source: https://www.charityjob.co.uk/careeradvice/career-guides/digital-content-manager/

Copywriter and Editor

•The copywriter prepares and evaluates copy. When material from existing brochures, newsletters, and white papers will be used on the website, it must be repurposed or reworked for the web media.

•The content manager or editor may work with the copywriter to check the text for correct grammar and consistency.

Source: https://www.one-story.com/blog/?p=4941

The Development Process

●Large corporate and commercial websites don’t just happen. They are carefully built, usually by following a project development methodology.

• A **methodology** is a step-by-step plan that encompasses the life cycle of a project from start to finish. It comprises a series of phases, each having specific activities and deliverables.

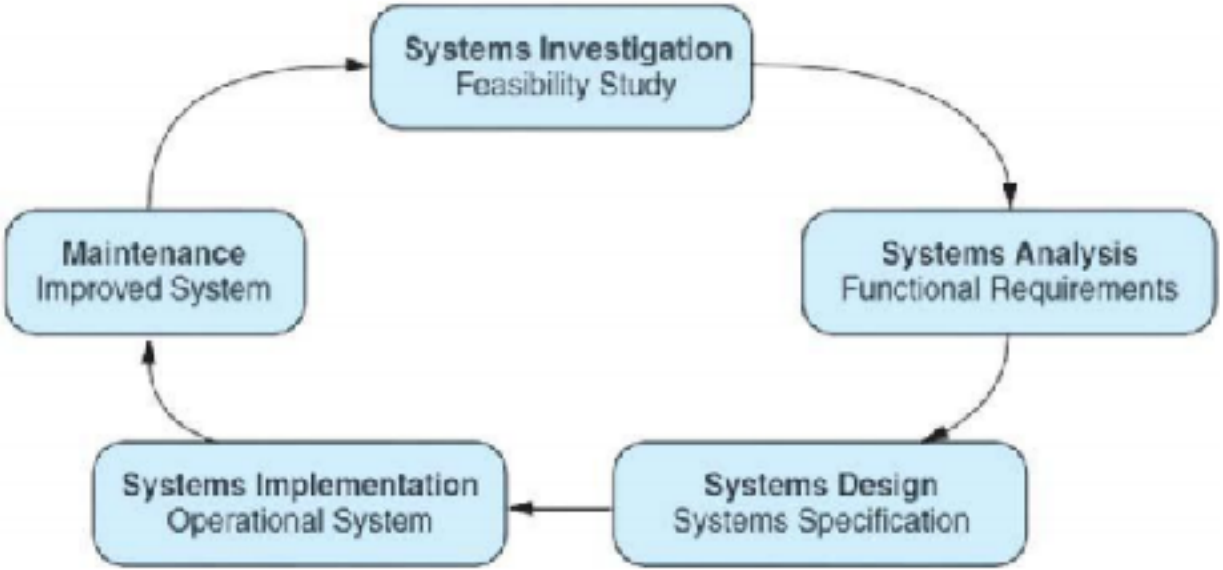
System Development Life Cycle (SDLC)

•a process that has been used for several decades to build large-scale information systems.

•comprises a set of phases, sometimes called steps or stages.

•Each phase is usually completed before beginning the activities in the next phase.

Systems Development Life Cycle (SDLC)

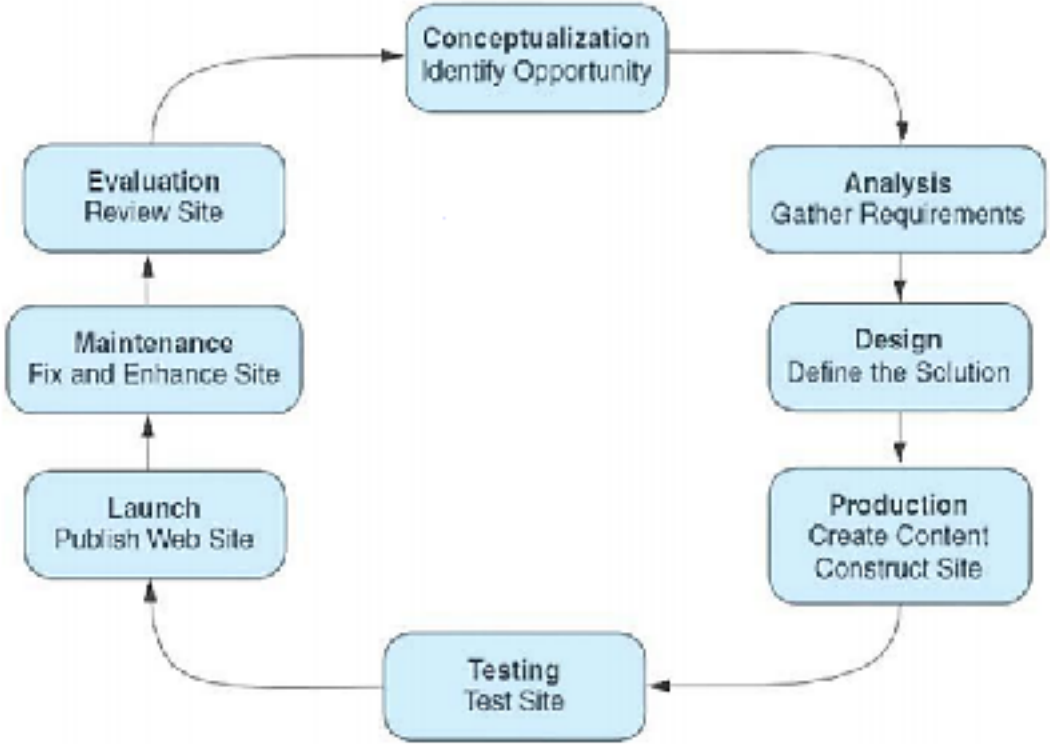


Web Development Cycle

- The Website Development Cycle is a guide to successful web project management.

- Depending on the scope and complexity of a particular project, some steps can be completed in a single meeting; other steps can take weeks or months.

Web Development Cycle



Other Development Methods

1. Prototyping
2. Spiral System Development
3. Joint Application Development (JAD)
4. Rapid Application Development (RAD)
5. Agile Software Development
6. Unified Process (for OOP development)
7. Organization-Specific Development Methodologies

Analysis

Common tasks completed during the Analysis phase

1. Determine Information Topics
2. Determine Functionality Requirements
3. Determine Environmental Requirements
4. Determine Content Requirements
5. Compare the Old Approach to the New Approach
6. Review Your Competitors' Sites
7. Estimate Costs
8. Do a Cost/Benefit Analysis

Design

Common tasks during the Design phase

1. Choose a Site Organization
2. Design the Prototype
3. Design a Page Layout
4. Document Each Page

Production

Common tasks of the Production phase

1. Choose a Web Authoring Tool
2. Organize Your Site Files
3. Develop and Individually Test Components
4. Unit Testing

Testing

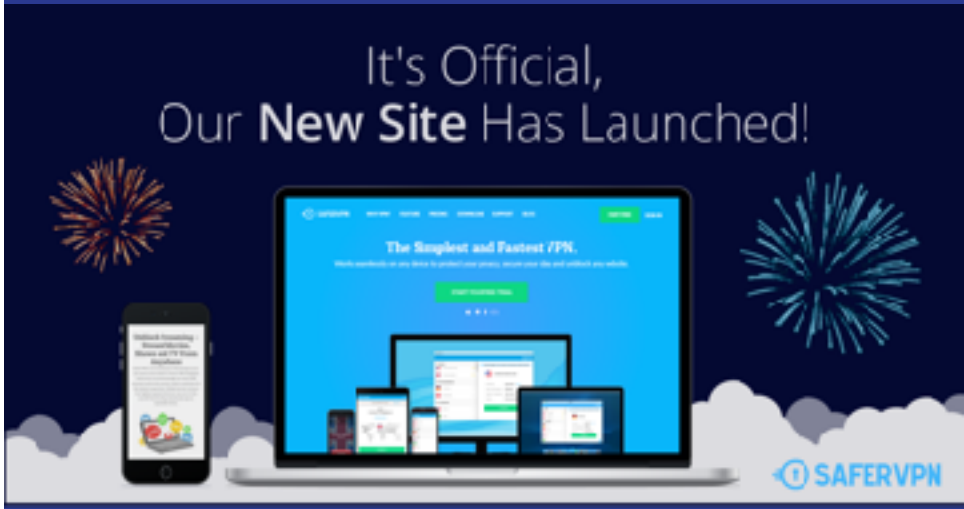
Some common site testing considerations

1. Test on Different Browsers and Browser Versions
2. Test with Different Screen Resolutions
3. Test Using Different Bandwidths
4. Test from Another Location
5. Test Using Mobile Devices

Example checklist for web app testing

Navigation	
12. Main navigation is easily identifiable	✓ ✓ ✗
13. Navigation labels are clear & concise	✓ ✓ ✗
14. Number of buttons/links is reasonable	✓ ✓ ✗
15. Company logo is linked to home-page	✓ ✓ ✗
16. Links are consistent & easy to identify	✓ ✓ ✗
17. Site search is easy to access	✓ ✓ ✗

Launch


It's Official,
Our New Site Has Launched!
The Simplest and Fastest #VPN.
SAFERVPN

Launch

•The client—whether another company or another department in your organization—needs to review and approve the tested website before the files are published to the live site.

●Sometimes this approval takes place at a face-to-face meeting. Other times, the test URL is given to the client and the client e-mails approval or requested changes.

●Once the test website has been approved, it is published to your live production website (this is called a **launch**).

Maintenance

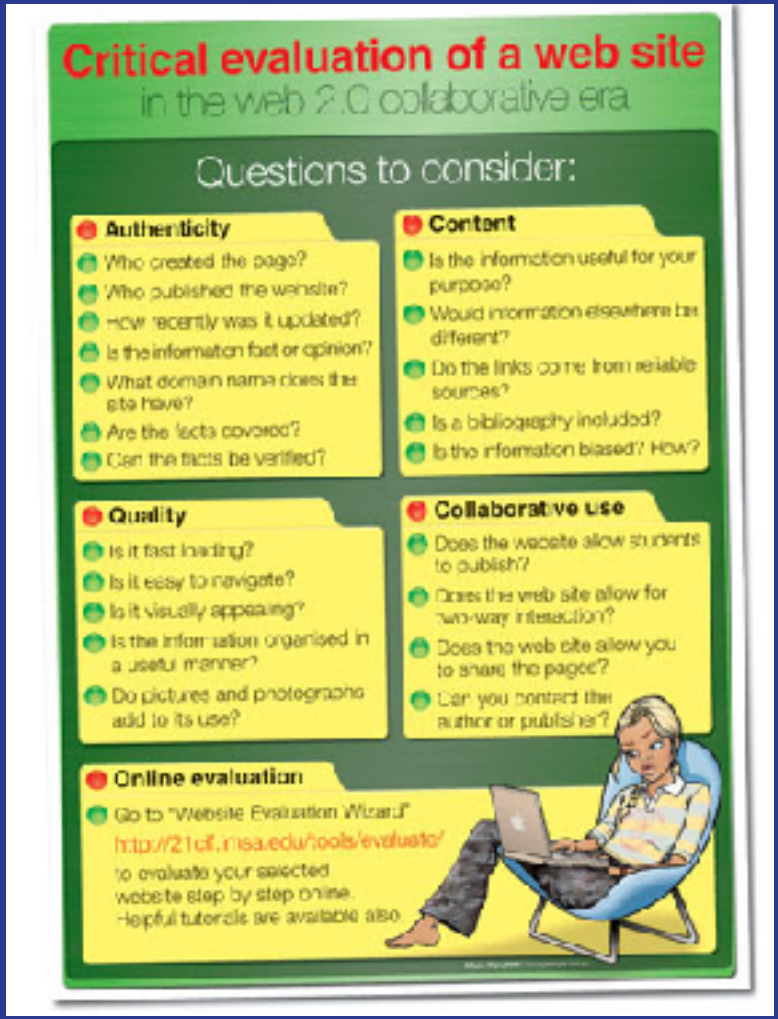
Maintenance

•A website is never finished. There are always errors or omissions that were overlooked during the development process.

•Clients usually find many new uses for a website once they have one and request modifications, additions, and new sections (this is called site **maintenance**).

•Other types of updates needed may be relatively small—perhaps a link is broken, a word is misspelled, or a graphic needs to be changed. These small changes are usually made as soon as they are noticed.

Evaluation


Critical evaluation of a web site
in the web 2.0 collaborative era
Questions to consider:
Authenticity
Who created the page?
Who published the website?
How recently was it updated?
Is the information fact or opinion?
What domain name does the site have?
Are the facts covered?
Can the facts be verified?
Content
Is the information useful for your purpose?
Would information elsewhere be different?
Do the links come from reliable sources?
Is a bibliography included?
Is the information biased? How?
Quality
Is it fast loading?
Is it easy to navigate?
Is it visually appealing?
Is the information organised in a useful manner?
Do pictures and photographs add to its use?
Collaborative use
Does the website allow students to publish?
Does the web site allow for two-way interaction?
Does the web site allow you to share the page?
Can you contact the author or publisher?
Online evaluation
Go to "Website Evaluation Wizard"
http://21cl.rmsa.edu/tools/evaluate/
to evaluate your selected website step by step online.
Helpful tutorials are available also.

Evaluation

•Remember the goals set for the website in the Conceptualization phase?

•During the **evaluation** phase, it's time to review them and determine whether your website meets them. If not, consider how you can enhance the site and begin another loop through the development process.

End of Topic