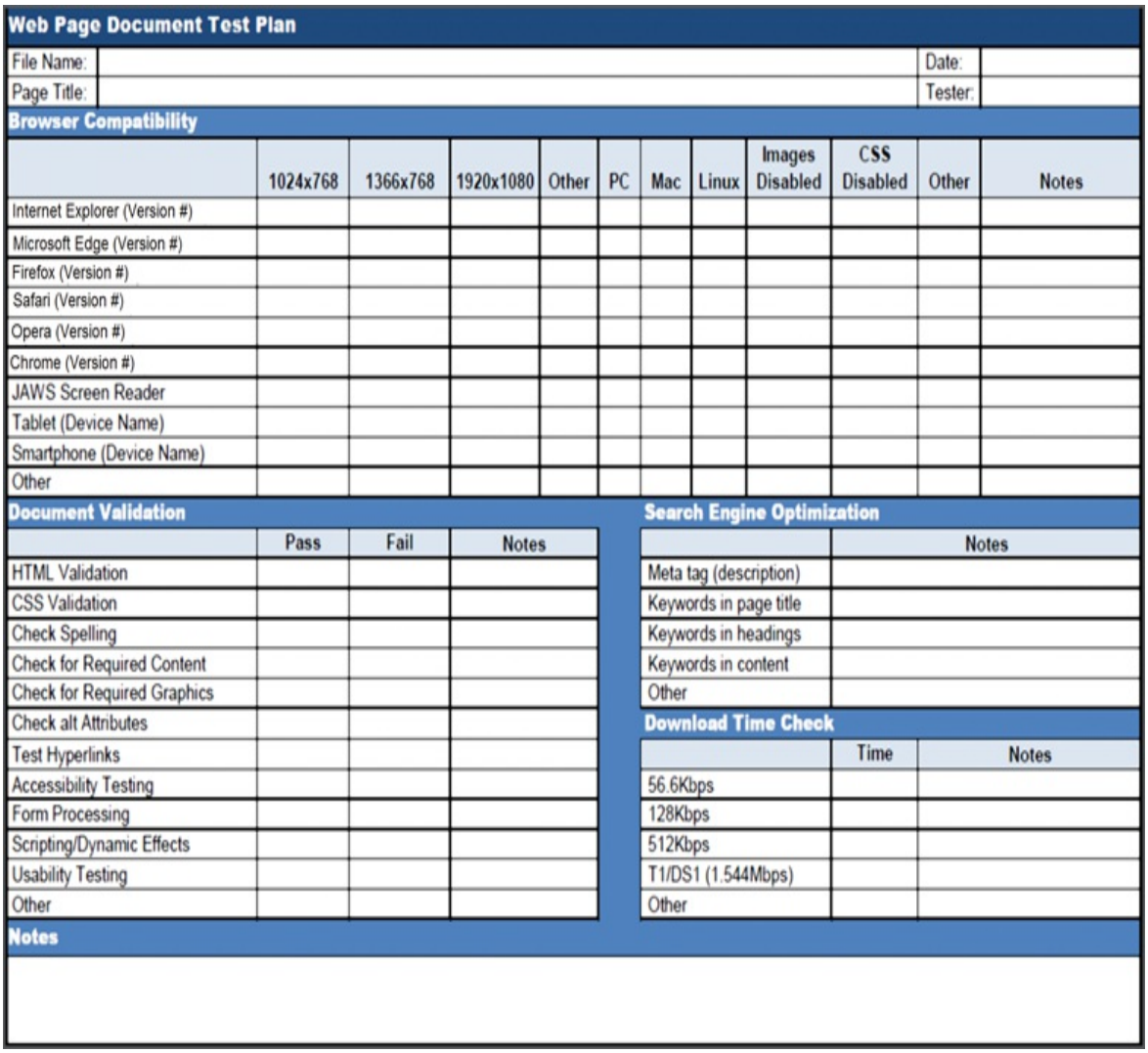

Web Page Document Test Plan

File Name:		Date:	
Page Title:		Tester:	

Browser Compatibility

	1024x768	1366x768	1920x1080	Other	PC	Mac	Linux	Images Disabled	CSS Disabled	Other	Notes
Internet Explorer (Version #)											
Microsoft Edge (Version #)											
Firefox (Version #)											
Safari (Version #)											
Opera (Version #)											
Chrome (Version #)											
JAWS Screen Reader											
Tablet (Device Name)											
Smartphone (Device Name)											
Other											

Document Validation

	Pass	Fail	Notes
HTML Validation			
CSS Validation			
Check Spelling			
Check for Required Content			
Check for Required Graphics			
Check alt Attributes			
Test Hyperlinks			
Accessibility Testing			
Form Processing			
Scripting/Dynamic Effects			
Usability Testing			
Other			

Search Engine Optimization

	Notes
Meta tag (description)	
Keywords in page title	
Keywords in headings	
Keywords in content	
Other	

Download Time Check

	Time	Notes
56.6Kbps		
128Kbps		
512Kbps		
T1/DS1 (1.544Mbps)		
Other		

Notes

Sample test plan

Figure 10.4 Full Alternative Text

Automated Testing Tools and Validators

The web authoring tool you use for your project will provide some built-in site reporting and testing features. Web authoring applications such as Adobe Dreamweaver provide functions such as spell-check, link checks, and load time calculations. Each application has unique features. Dreamweaver's

reporting includes link checking, accessibility, and code validation. There are other automated testing tools and validators available. The W3C Markup Validation Service (http://validator.w3.org) can be used to validate both HTML and XHTML. Test CSS for proper syntax using the W3C CSS Validation Service (http://jigsaw.w3.org/css-validator). Analyze the download speed of your page using the Web Page Analyzer (http://www.websiteoptimization.com/services/analyze).

Accessibility Testing

Accessible web pages can be used by all individuals, including those with visual, hearing, mobility, and cognitive challenges. As you've worked through this book, accessibility has been an integral part of your web page design and coding rather than an afterthought. You've configured headings and subheadings, navigation within unordered lists, images with alternate text, and associations between text and form controls. These techniques all increase the accessibility of a web page.

Web Accessibility Standards

- Section 508 of the Rehabilitation Act. Section 508

  (http://www.access-board.gov/sec508/guide/1194.22.htm) requires electronic and information technology, including web pages, that are used by U.S. federal agencies to be accessible to people with disabilities. The U.S. Access Board released a revision of Section 508 requirements (referred to as the Section 508 Refresh) in January 2017. The Section 508 refresh updates Section 508 requirements to harmonize with WCAG 2.0 Success Criteria.

- Web Content Accessibility Guidelines (WCAG 2.0). WCAG 2.0

  (http://www.w3.org/TR/WCAG20) considers an accessible web page to be perceivable, operable, and understandable for people with a wide range of abilities. The page should be robust enough to work with a variety of browsers and other user agents, such as assistive technologies (for example, screen readers) and mobile devices. The guiding principles of WCAG 2.0 are known as POUR:

  1. Content must be **P**erceivable.

  2. Interface components in the content must be **O**perable.

  3. Content and controls must be **U**nderstandable.

  4. Content should be **R**obust enough to work with current and future user agents, including assistive technologies.

Prove your compliance with accessibility standards by performing accessibility testing on your site. A complete list of WCAG 2.0 Success Criteria is provided at https://www.w3.org/WAI/WCAG20/quickref. As a starting point, go through the Easy Checks listed at https://www.w3.org/WAI/eval/preliminary. There are a variety of automated accessibility checkers available. WebAIM Wave (http://wave.webaim.org) and ATRC AChecker (http://www.achecker.ca/checker) are two popular free online accessibility evaluation tools. The Web Developer Extension (http://chrispederick.com/work/web-developer) is a browser toolbar that can be used to assess accessibility of a web page.

It’s important not to rely completely on automated tests—you’ll want to review the pages yourself. For example, while an automated test can check for the presence of an alt attribute, it takes a human to critically think and decide whether the text of the alt attribute is an appropriate description for a person who cannot view the image.

Usability Testing

Usability is the measure of the quality of a user's experience when interacting with a website. It's about making a website that is easy, efficient, and pleasant for your visitors. Usability.gov (http://www.usability.gov/what-and-why/usability-evaluation.html) describes factors that affect the user's experience:

- Intuitive Design. How easy is it for a new visitor to understand the organization of the site? Is the navigation intuitive for a new user?

- Ease of Learning. How easy is it to learn to use the website? Does a new visitor consider it easy to learn to perform basic tasks on the website or is he or she frustrated?

- Efficiency of Use. How do experienced users perceive the website? Once they are comfortable, are they able to complete tasks efficiently and quickly or are they frustrated?

- Memorability. When a visitor returns to a website, does he or she remember enough to use it productively or is the visitor back at the beginning of the learning curve (and frustrated)?

- Error Frequency and Severity. Do website visitors make errors when navigating or filling in forms on the website? Are they serious errors? Is it easy to recover from errors or are visitors frustrated?

- Subjective Satisfaction. Do users like using the website? Are they satisfied? Why or why not?

Testing how actual web page visitors use a website is called **usability testing**. It can be conducted at any phase of a website's development and is often performed more than once. A usability test is conducted by asking users to complete tasks on a website, such as placing an order, looking up the phone number of a company, or finding a product. The exact tasks will vary depending on the website being tested. The users are monitored while they try to perform these tasks. They are asked to think out loud about their doubts and hesitations. The results are recorded and discussed with the web design team. Often, changes are made to the navigation and page layouts based on these tests. Perform the small-scale usability test in Hands-On Exercise 5 at

the end of this chapter to become more familiar with this technique.

If usability testing is done early in the development phase of a website, it may use the paper page layouts and site map. If the development team is struggling with a design issue, sometimes a usability test can help to determine which design idea is the better choice. When usability is done during a later phase, such as the Testing phase, the actual website is tested. This can lead to confirmation that the site is easy to use and well designed, to last minute changes in the website, or to a plan for website enhancements in the near future.

Launch

Your client—whether another company or another department in your organization—needs to review and approve the test 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). If you think you are finished, think again! It is crucial to test all site components after publishing to make sure the site functions properly in its new environment. Marketing and promotional activities for the website (see Chapter 13) usually take place at this time.

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). At this point, the project team identifies the new opportunity or enhancement and begins another loop through the development process.

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. The question of who makes the changes and who approves them is often a matter of company policy. If you are a freelance web developer, the situation is more straightforward—you will make the changes and your client will approve them.

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.

Checkpoint 10.1

1. Describe the role of the project manager.
2. Explain why many different roles are needed on a large-scale web project.
3. List three different techniques used to test a website. Describe each technique in one or two sentences.