Lab 1-1 Solution

Answers vary to this question. One thing that students may do is to review the Web sites of other government Web sites (e.g., www.whitehouse.gov, www.fbi.gov) to compare those to onguardonline.gov. The onguardonline.gov site is webbed in that it provides multiple links to the same Web pages. For instance, on the home page, there is a link on the menu bar (top of page) to a Web page for Topics. There is also a graphic link further down the page that takes the visitors to that same Web page for Topics. The Web site has a linear look as well. If you look for a specific item (e.g., games), you can also search linearly by clicking the “see next item” button.

Students should try to search all of the Web sites for specific information that is found on each Web site. They should then compare the ease of use of each site together with the results attained for the same search request. Do all of the Web sites provide a search capability? If so, how effectively does each search work? As Web developers, students should always be aware of new, improved Web development techniques. Watch the big name sites like Amazon.com, Microsoft.com, and Dell.com and see what they are doing. Try to apply their techniques to your own Web sites.

Make it Right – Web Page Organizational Standards

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| --- | --- | --- |
| Element | Organizational Standard | Reason |
| Titles | Use simple titles that clearly explain the purpose of the page | Titles help users understand the purpose of the page; a good title explains the page in the search engine results lists |
| Headings | Use headings to separate main topics | Headings make a Web page easier to read; simple headlines clearly explain the purpose of the page |
| Horizontal Rules | Insert horizontal rules to separate main topics | Horizontal rules provide graphical elements to break up Web page content |
| Paragraphs | Use paragraphs to help divide large amounts of text | Paragraphs provide shorter, more-readable sections of text |
| Lists | Utilize bulleted or numbered lists when appropriate | Lists provide organized, easy-to-read text that  readers can scan |
| Page Length | Maintain suitable Web page lengths | Web users do not always scroll to view information on longer pages; appropriate page lengths increase the likelihood that users will view key information |
| Information | Emphasize the most important information by placing it at the top of a Web page | Web users are quick to peruse a page; placing critical information at the top of the page increases the likelihood that users will view key information |
| Other | Incorporate a contact e-mail address; include the date of the last modification | E-mail addresses and dates give users a way to  contact a Web site developer with questions; the date last modified helps users determine the  timeliness of the site information |

**Cases and Places**

1 – Academic

It is important for students to be able to develop an effective usability survey. Testing their surveys with different groups of people is sometimes the best way to determine effectiveness. When developing a user survey, you must be clear about what information you are trying to gather. As mentioned in Chapter 1, you should provide a scale if necessary. If a Yes/No answer is not enough, you need to elaborate on the questions asked. Always provide room for the user to enter additional information in their own words. Keep the number of questions short because extraordinarily long surveys can immediately prompt people to not want to take them. You should only ask questions that address your core needs. One thing that you want to do with a user survey is to maximize your results. If you only receive back 2 out of 200 surveys, how significant is the data that you receive? With that point in mind, you need to assure that you are asking the right people to complete the survey and get the word out to those people that the survey is available. You really want students, early in their Web development careers to understand what it means for a Web site to be effective and surveys help with that concept. We have a class discussion about what “effectiveness” means to them. It’s quite interesting to hear the variety of answers from them. I always ask my students: What is more important: 1) having a good Web page design, or 2) having a Web page in which the user can find the information for which they are looking?

2 – Personal

I love doing this exercise at the start of a class because it helps us develop a wonderfully comprehensive list of Web development resources throughout the semester. I generally have students hand in their reports online so that I can easily copy/paste them into one document or Web page. I require that they explain why they think the Web resource is useful because that helps students reviewing the comprehensive document. I also organize the document into categories throughout the semester. You will end up with categories such as: HTML5, CSS, CSS3, images, free clip art, etc. This is an ongoing process, and students love the end result of a document full of Web development resources.

3 – Professional

Answers will vary to this question. There are many Web sites that address accessibility issues. Students should determine what barriers are involved and think of ways to eliminate those barriers to accessibility and encourage compliance with existing accessibility guidelines, such as Section 508 and the W3C's WCAG. To learn about products to test websites of all sizes for accessibility issues, please visit the [accessibility section on www.watchfire.com](http://www.watchfire.com/solutions/accessibility.asp). Web developers need to consider users with disabilities when designing Web pages. Some consideration is always having text links together with graphics links, providing alternatives when sound is a key point of a Web page, and using the alt attribute with all graphical images.

Extend Your Knowledge 1-1 Solution

Answers vary to this question. Students should give their initial impression of the survey and then compare those ideas with the class. Have students review the questionnaire in Figure 1-17 and compare that to the sample survey. Students could work in teams to search for Web sites that contain information about surveys and utilize some of the ideas discussed in those Web sites. You can use this as a good discussion point on good techniques to use when writing surveys. Questions in their surveys should be clear enough that people readily understand what question is being asked. The whole purpose of the survey is to find out valuable information. Asking a user a question like, “The Web site appearance is: Nice Not good” will not give you any valuable information. You need to know what it is about the appearance that is good or not good. Another thing to consider in this survey is the lack of polite language. You should ask a user to “please” complete the survey, not make it sound like a command. Also, the survey itself should be attractive and have everything lined up.

The key questions (How helpful was the survey in determining improvements to the selected Web site? Were there other questions or types of questions that you could ask that could have provided more valuable information about the Web site?) are also important to review with the class as a whole. It is essential that students are able to assess whether or not their survey actually gives them helpful information.

Lab 1-1 Solution

Answers vary to this question. Students usually enjoy trying to find “good” and “bad” (especially bad) Web sites. One of the main purposes of this exercise is for students to verbalize what constitutes good and bad in their opinions. Having students rate Web sites make them understand that usability is an important thing to consider as a Web developer. The user may find the site to be visually appealing, but maybe they could not find the information that they were looking for. What is more important? This is a great topic of conversation in the classroom.

When the students compare their Web site selections, it brings in an entirely new set of issues. What one student might find to be a “good” Web site may be “bad” to another student. Students need to understand that as Web developers, they should consider the differences of opinion of their viewing audience. There is no right or wrong way to do things generally. I have always had a lot of fun with this exercise. Depending on time constraints, I may just have each student show their “good” and “bad” Web sites to the whole class and verbalize why they rated the sites that way. Whole class discussion on this topic is very insightful.

Lab 1-2 Solution

Again, answers vary to this question. The design of the Web page can change, depending on the information that the friends and relatives who you interview want to display. Make sure that students follow the Web Development Life Cycle methodology when designing this Web page because a bad design is carried through the entirety of the project. It is not enough to be able to develop a Web page; it is more important to determine an effective design first. Developing the Web page is the easier task of the two.

One thing to focus on in this exercise is to review the differences between what a flower shop owner may want in a Web site versus what a visitor to the flower shop may want. Students may have a difficult time interviewing enough people to design an effective Web site, but they may be able to determine some of that by visiting Web sites for several flower shops.

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| **Type of Business** | | | |
| **Planning Question** | **Internet** | **Intranet** | **Extranet** |
| What is the purpose of this Web site? | To provide public information to customers and prospective customers | To provide private information to company employees | To provide private information (e.g., inventory levels, order status) to valued customers and suppliers |
| Who will use this Web site? | Anyone with access to the Internet | Employees within the company | Valued customers and suppliers |
| What are their computing environments? | Check the Web site log to determine this | There are generally standards set forth in a company that controls environment within the company | Need to determine with surveys sent to customers and suppliers and from Web site log |
| Who owns and authors the information on the Web site? | Generally employees from the marketing department | Generally a function of a human resource department | Generally those in marketing, inventory controls, order processing department, and the financial departments within a company |
| Who decides if/where the information goes on the Web site? | Generally the marketing department | Generally the human resource department | Generally the marketing department together with representatives from the customer service and production departments |