Stephanie Welsh worked for Petrie's database administrator. She had been overseeing two interns who were helping her translate conceptual database designs into physical designs. As they were finishing up the task she had assigned to them, she realized that they would soon need something else to do.

She called Sanjay Agarwal, one of the most talented interface designers in Petrie's IT shop.

"Hi Sanjay, this is Stephanie. Got a minute?"

"For you, I can make the time," Sanjay replied.

"Well, this is not about me, this is about my two interns. They are about done with the database work I assigned them. They need something else to do, and I thought of you. Aren't you starting work on some of the customized Web designs for 'No Customer Escapes?' "

"Yep," Sanjay said. "That's next on my list of two thousand things I have to do this week."

"So I can send them over? That will be great. They are both good workers and very bright, so I think you will get a lot out of them."

"How much do they know about Web interface design?" Sanjay asked.

"Not much, I don't think."

"Well, that's not the answer I wanted. OK, I know what I'll do. I'll have them derive a list of guiding principles for good Web interface design. They can start by looking at the website design principles listed on Jakob Nielsen's site [*www.nngroup.com*]. His site is extensive, with many short articles of helpful hints for making websites usable."

After visiting Nielsen's site, the interns came up with the list of guidelines featured below:

Feature	Guideline
Interacting menus– avoid	When users select something on one menu, options change in other menus on the same page. These changing options confuse users. It's hard to make a preferred option visible when it depends on a selection in another menu.
Very long menus– avoid	Long menus require users to scroll through them, and they can't see all of their options at once. It's better to break up the menu as a series of submenus or to represent some of the choices as hypertext links.
Menus of abbreviations– avoid	It is usually faster for users to simply type the abbreviation (e.g., a two-character state code) than to select it from a drop-down menu. Free-form input requires validation by a code on the web page or on the server.

(Source: Adapted from the following sources: Jakob Nielsen website www.nngroup.com , specifically pages: www.nngroup.com/articles/drop-down-menus-use-sparingly/ , www.nngroup.com/articles/top-10-mistakes-web-design/ , www.nngroup.com/articles/ten-usability-heuristics/ , www.nngroup.com/articles/reset-and-cancel-buttons/ , and www.nngroup.com/articles/top-ten-mistakes-revisited-three-years-later/ .)

Menus of well-known data– avoid	Selecting well-known data, such as month, city, or country, often breaks the flow of typing for users and creates other data entry problems.
Frames– use sparingly	Frames can be confusing when a user tries to print a page or when trying to link to another site. Frames can prevent a user from e-mailing a URL to other users and can be more clumsy for inexperienced users.
Moving page elements – use sparingly	Moving images have an overpowering effect on the human peripheral vision and can distract a user from productive use of other page content. Moving text may be difficult to read.
Scrollings – minimize	Some users will not scroll beyond the information that is visible on the screen. Thus, critical content and navigation elements should be obvious (on the top of the page, possibly in a frame on the top of the page so that these elements never leave the page).
Context – emphasize	You know more about your site than users do. They have difficulty finding information, so the site should be designed to provide them the structure and sense of place they need. Try to design your site from the user's perspective and relay this structure explicitly to users.
System status – make visible	The system should always provide information to users about what the system is doing. Reasonable feedback should be provided within a reasonable time frame.
Language– use user's terms	Your site's language should be natural and logical. It should be based on the users' language, not system language. The site should feature words and concepts familiar to the user, following real-world conventions.
Fixing mistakes– make it easy	Users make mistakes and make bad choices. They need a way to exit from their mistakes without going through an extended dialogue. Your site should support undo, redo, and default settings. But a good design that minimizes errors is always better than a good design message.
Actions– make them obvious	Make objects, actions, and options visible. Every part of the dialogue should be clear and independent of any other part. Instructions should be visible or easily accessible when appropriate.
Customize– for flexibility and efficiency	Design the system for both novice and experienced users. Allow users to tailor the system to their frequent actions.
Content– make it relevant	Every part of a dialogue should be relevant. Irrelevant information competes with necessary information and hence diminishes its visibility.
Cancel button – use sparingly	Users have come to rely on the *Back* button to get out of unintended or unpleasant situations. Using the *Back* button is not always the best way out. Include a *Cancel* button as well. *Cancel* provides an explicit way to quit, which allows a feeling of safety that goes beyond simply leaving a site.

Case Questions:

1. Visit the Nielsen website and update the table above based on guidelines and articles posted since this list was compiled. Add only elements you believe are essential and relevant to the design of “No Customer Escapes.”
2. Review the written assignment answers from the previous unit. Combine into your answer to the question concerning usability the guidelines from this unit. How unique do you consider the human interface design guidelines for a website to be from general application design guidelines? Justify your answer.
3. Search for other Web-based resources, besides the Nielsen website, for website design. (Hint: Look at the references at the end of this and prior chapters in the text.) In what ways do the design guidelines you find contradict your answers from the previous unit covering HCI? Explain the differences.
4. This unit introduced the concepts of loyalty and trustworthiness as necessary for customers to interact with a website. What elements could be added to a customer loyalty site such as “No Customer Escapes” to improve the levels of loyalty and trustworthiness of Petrie’s customers?