

IT 331: Final Project Guidelines and Grading Guide

Overview

The final project for this course is the creation of a **company consult debrief** that analyzes an existing web application with regard to its human-computer interaction (HCI) and recommends solutions for improving the application to meet the needs of the intended audience. This assessment will give you a chance to demonstrate your skills in employing user-centered methodologies in the analysis of an existing web application, and you will make recommendations for improving the application to meet the end user's needs.

The project is divided into **two milestones**, which will be submitted at different points throughout the course to scaffold learning and ensure quality final submissions. These milestones will be submitted in **Modules Three and Five**. The final project is due in **Module Seven**.

Outcomes

In this assignment, you will demonstrate your mastery of the following course outcomes:

- Assess the potential of user interfaces for meeting their intended audiences' needs
- Determine the extent to which IT applications demonstrate compliance with accessibility guidelines in recommending improvements that align with standards-based policies
- Evaluate user interfaces using heuristic evaluation techniques for their compliance with human-computer interaction best practices
- Propose user-centered solutions that apply human-computer interaction best practices in meeting the intended audience's needs

Prompt

Use one of the web-based applications listed below as the basis for your analysis and recommendations.

- [The Southern New Hampshire University \(SNHU\) Student Portal](#). Log in with your SNHU credentials.
- [Wufoo](#). Wufoo allows you to create surveys and invitations and even to take orders online. You can show the results in graphical form with pie charts, bar graphs, and line graphs. This is a free application, but it requires registration.
- [FreshBooks](#). FreshBooks features invoicing, web-based time tracking, and expense tracking with rich functionality. Because the free version allows for up to three customers, this application is most useful for service-oriented businesses with just a few clients. This is a free application, but it requires registration.
- [MailChimp](#). MailChimp enables you to quickly create email newsletters. This is a free application, but it requires registration.
- [Capsule](#). Capsule is a customer relationship management (CRM) system designed for small businesses. This is a free application, but it requires registration.

- [Weebly](#). Weebly's website-building and hosting service allows you to build up to two sites. You can also set up a blog, and readers can post comments. This is a free application, but it requires registration.
- [PayPal](#). PayPal offers a secure electronic shopping cart that gets your electronic storefront up and running within minutes. This is a free application, but it requires registration.

Specifically, the following **critical elements** must be addressed:

1. **Overview.** Identify the application you chose, its intended audience, and the reasons you chose it.
2. **Analysis.** Assess the existing application with regard to human-computer interaction (HCI), being sure to employ appropriate HCI terminology.
 - a. **Visual/Graphic Design.** Describe the application's overall aesthetic quality, layout of information, and clarity of visual elements (e.g., icons) with regard to how they are presented to the audience. You may also wish to provide details about whether these elements are aligned with industry best practices.
 - b. **Ease of Use.** Describe the navigability of the application and its ability to move users through tasks in a logical and flexible manner with respect to HCI best practices. Justify your position with specific examples.
 - c. **Functionality.** Assess the functionality of the application with respect to HCI best practices. For example, how long does it take for each page to load? Do the application's required user actions correspond to their goals? How accessible is the information the user is trying to obtain? (That is, must the user go to multiple systems for information?) Justify your position with specific examples.
 - d. **Environmental Factors.** What potential factors in the intended audience's environment would impact the use of the application? For example, if the site requires sound to relay critical information and the audience is in a library, how would that impact the user experience?
 - e. **Cognitive Load.** Discuss how the application accounts for human limitations in cognitive capabilities (e.g., how user friendly the application is for users with various levels of technical knowledge), as well as sensory capabilities (e.g., how well the application is designed to avoid eye strain), with respect to HCI best practices. Justify your position with examples.
 - f. **Human Factors.** Describe the impact of human factors—such as culture, gender, or socioeconomic status—on the intended audience's use of the application.
 - g. **Accessibility.** Discuss whether the application demonstrates compliance with accessibility guidelines. Justify your position with specific examples. For example, you might use the following Section 508 standards to identify potential gaps in the current application: "Software Applications and Operating Systems," "Web-Based Intranet and Internet Information and Applications," and "Functional Performance Criteria."
3. **Recommendations.** Recommend changes to improve the human-computer interaction, and describe the methodologies that back up your recommendations.
 - a. **Changes.** Given the analysis you have conducted, describe specific changes you would recommend for improving the application's human-computer interaction with respect to its intended audience, and describe how you would implement those improvements.
 - b. **Accessibility.** Given the analysis you conducted above, describe specific changes you would recommend for bringing the application into

full compliance with accessibility guidelines, and describe how you would implement those improvements.

- c. **Methodologies.** Describe the user-centered methodologies that support your recommendations, and describe how they support your recommendations. For example, what human factors should be taken into account in improving the effectiveness of the user interface for a broader audience?
- d. **User's Environment.** What recommendations would you make in aligning the application to the needs of the user's environment? Why? For example, if critical instructions are in the audio and the environment is not conducive to hearing them, how would recommend that information be conveyed?

Milestones

Milestone One: Application Overview and Initial Analysis

In **task 3-2**, you will submit an overview of your selected web application and an analysis of the application's design and ease of use with regard to human-computer interaction. **This milestone will be graded with the Milestone One Rubric.**

Milestone Two: Application Analysis

In **task 5-2**, you will assess the human-computer interaction of your selected application in terms of functionality, cognitive load, human/social factors, and 508 accessibility compliance. **This milestone will be graded with the Milestone Two Rubric.**

Final Submission: Company Consult Debrief

In **task 7-2**, you will submit your company consult debrief. It should be a complete, polished artifact containing all of the critical elements of the final product. It should reflect the incorporation of feedback gained throughout the course. **This submission will be graded with the Final Project Rubric.**

Final Project Rubric

Guidelines for Submission: Your company consult debrief should be submitted as a Word document that uses double spacing, 12-point Times New Roman font, one-inch margins, and APA-style citations. The debrief itself (not including the title page and resources) should be three to five pages in length.

Critical Elements	Exemplary (100%)	Proficient (85%)	Needs Improvement (55%)	Not Evident (0%)	Value
Overview	Meets “Proficient” criteria and uses industry-specific language to establish expertise	Identifies the chosen application, its intended audience, and the reasons for choosing it	Identifies the chosen application and its intended audience but does not adequately explain the reasons for choosing it	Does not identify the chosen application, its intended audience, or the reasons for choosing it	4
Analysis: Visual/Graphic Design	Meets “Proficient” criteria and qualifies whether visual and graphic elements are aligned with industry best practices	Comprehensively describes the application’s overall aesthetic quality, layout of information, and clarity of visual elements with regard to how they are presented to the audience	Describes the application’s overall aesthetic quality, layout of information, and clarity of visual elements, but description lacks detail or is not accurate with regard to how they are presented to the audience	Does not describe the application’s overall aesthetic quality, layout of information, and clarity of visual elements with regard to how they are presented to the audience	11
Analysis: Ease of Use	Meets “Proficient” criteria and provides insightful details about HCI with regard to ease of use	Comprehensively describes the application’s navigability with respect to HCI best practices and justifies position with examples	Describes the application’s navigability but does not address HCI best practices, or does not support position with examples	Does not describe the application’s navigability	5
Analysis: Functionality	Meets “Proficient” criteria and provides insightful details about HCI with regard to functionality	Assesses functionality of the application with respect to HCI best practices and justifies position with specific examples	Assesses functionality of the application but does not address HCI best practices, or does not justify position with specific examples	Does not assess functionality of the application	5
Analysis: Environmental Factors	Meets “Proficient” criteria and provides insightful details about the degree to which factors in the audience’s environment impact the use of the application	Describes potential factors in the intended audience’s environment that would impact the use of the application	Describes potential factors in the intended audience’s environment but does not connect to how they would impact the use of the application	Does not describe potential factors in the intended audience’s environment	5

Analysis: Cognitive Load	Meets “Proficient” criteria and provides insightful details about HCI with regard to human cognitive and sensory capabilities	Comprehensively discusses how the application accounts for human cognitive and sensory capabilities with regard to HCI best practices and justifies position with specific examples	Discusses how the application accounts for human cognitive and sensory capabilities but does not address HCI best practices or does not justify position with specific examples	Does not discuss how the application accounts for human cognitive and sensory capabilities	5
Analysis: Human Factors	Meets “Proficient” criteria and extends analysis beyond intended audience’s use of the application	Comprehensively describes the impact of human factors on the audience’s use of the application	Describes the impact of human factors on the audience’s use of application, but description lacks detail or is not accurate	Does not describe the impact of human factors on the audience’s use of application	11
Analysis: Accessibility	Meets “Proficient” criteria, and examination includes harm caused by noncompliance	Discusses whether the application demonstrates compliance with accessibility guidelines; justifies position with specific examples	Discusses whether the application demonstrates compliance with accessibility guidelines; does not justify position with specific examples	Does not discuss whether the application demonstrates compliance with accessibility guidelines	11
Recommendations: Changes	Meets “Proficient” criteria and provides detailed examples of how implementation will improve the application’s HCI	Recommends specific changes for improving application’s HCI with respect to its intended audience and describes implementation of improvements	Recommends specific changes for improving application’s HCI but does not address implementation of improvements, or description lacks detail specific to the intended audience	Does not recommend specific changes for improving application’s HCI with respect to its intended audience	11
Recommendations: Accessibility	Meets “Proficient” criteria and provides detailed examples of how implementation will remediate noncompliance	Comprehensively describes specific changes to recommend for bringing the application into full compliance with accessibility guidelines and describes implementation of improvements	Describes specific changes to recommend for bringing the application into full compliance with accessibility guidelines but does not describe implementation of improvements, or description lacks detail	Does not describe specific changes to recommend for bringing the application into full compliance with accessibility guidelines	11
Recommendations: Methodologies	Meets “Proficient” criteria and provides insightful details about the methodologies	Comprehensively describes user-centered methodologies that support the recommendations and describes how they support the recommendations	Describes user-centered methodologies that support the recommendations but does not describe how they support the recommendations, or description lacks detail	Does not describe user-centered methodologies that support the recommendations	11

Recommendations: User's Environment	Meets "Proficient" criteria and provides insightful details about how solution meets needs	Provides recommendations that would logically align the application to the needs of the user's environment and why	Provides recommendations that would align the application to the needs of the user's environment, but reasoning is not logical	Does not provide recommendations that would align the application to the needs of the user's environment	5
Articulation of Response	Submission is free of errors related to citations, grammar, spelling, syntax, and organization and is presented in a professional and easy to read format	Submission has no major errors related to citations, grammar, spelling, syntax, or organization	Submission has major errors related to citations, grammar, spelling, syntax, or organization that negatively impact readability and articulation of main ideas	Submission has critical errors related to citations, grammar, spelling, syntax, or organization that prevent understanding of ideas	5
Earned Total					100%