CS 3205

HCI in Software Development

Midterm

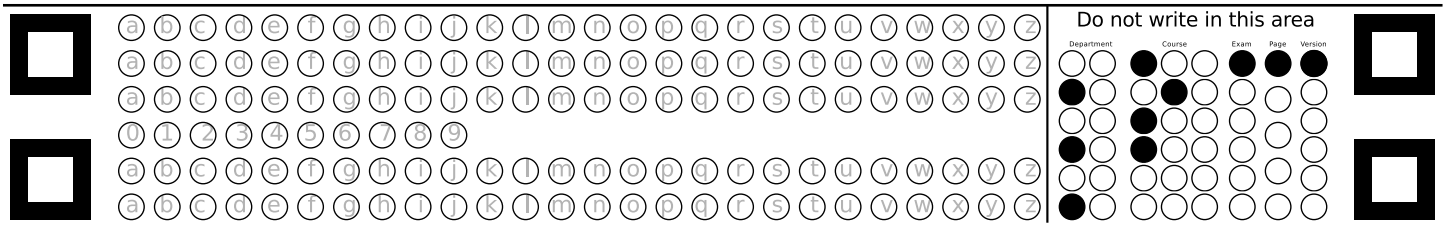
Sep 28th 2015

Name: _____

U.Va. Computing Id: _____

Honor Code:

Signature:



Users and Tasks

(1) Provide one strength and one weakness for each of the following needfinding methods. For maximum credit, provide answers that are as unique to that method as possible. [10]

Needfinding Method	***Strength***	***Weakness***
Questionnaires		
Interviews		
Focus Groups		
Naturalistic Observation		
Studying Documentation		

(2) In class we discussed developing *usability requirements* as a guide during an interface design process. Provide one strength and one weakness of using *usability requirements* in this way. [2]

Miscellaneous

(3) In class we watched *The Mother of All Demos*. I pointed out Engelbart's one handed keyboard that, when pressed, interpreted the keys as a binary number in order to figure out the correct character to type. Why did this keyboard not catch on? Apply a specific concept from class when forming your argument. [2]

(4) What is the WYSIWYG paradigm? Name one strength and one weakness of interfaces that use this paradigm. [3]

(5) We studied six generic ways to handle user errors. Describe one advantage and one disadvantage for each of the three techniques below. Try to make sure your solutions are unique to that technique. [6]

Error Handling Technique	***Advantage***	***Disadvantage***
Gag		
Do Nothing		
Self Correct		

Conceptual Models

(6) In class we saw an example of a failed conceptual model involving a user running out of disc space on his or her Mac. Which of the six *criticisms of conceptual models* that we studied best explains what happened? Explain your answer. [2]

(7) In *The Design of Everyday Things*, Don Norman discusses the conceptual model of his refrigerator. Briefly explain the difference between the conceptual model and the underlying system? In one sentence, why does this cause confusion for Norman? [2]

(8) In class we watched a video in which Elon Musk showed us a new way to interact with a model of a rocket engine. What *interaction type* was being applied here? Name one disadvantage of the interface shown. [2]

(9) Not many users understand the technical details of *email* (smtp, etc.). What is the *conceptual model of email*? Why does this help users use email effectively? [2]

Design Principles

(10) Our first design principle was titled *Simple and Natural Dialog*, and is often confounded with the more general idea of keeping your interface simple. Explain this design principle's meaning in the context of an online shopping website (e.g., Amazon.com). [2]

(11) What is a *loss of activation error*? Give one example of a loss of activation occurring while using technology and one example occurring in "real" life. You may NOT use an example that is in the slides (you have to come up with your own!). [3]

(12) What exactly do we mean when we say *"provide feedback"*? [1]

(13) In 2000, there was much debate over confusing presidential ballots in Florida. The ballot is shown below. Why is this ballot confusing to people? List at least one design principle that, if applied, would help fix the confusion of this ballot. **Hint: you can use content from the reading instead of the slides here.* [2]

PALM BEACH COUNTY BALLOT

REPUBLICANS GEORGE W. BUSH - President DICK CHENEY - Vice President	3→		
DEMOCRATS AL GORE - President JOE LEIBERMAN - Vice President	5→		←4 **REFORM** PAT BUCHANNAN - President EZOLA FOSTER - Vice President
LIBERTARIANS HARRY BROWNE - President ART OLIVER - Vice President	7→		←6 **SOCIALIST** DAVID McREYNOLDS - President MARY CALHOUS - Vice President
			←7