

First Exam

October 6th 2005

Length: 75 minutes – Total points: 100

(The grader reserves the right to take off up to 3 points for poor handwriting ... so write neat!).

1. Imagine a company wants to create an interface that lets the employees automatically order lunch. The company is rather big and has several hundred employees, plus each month there are visitors and interns that work at the company, from a few days to a couple of months. Also, not everybody is going to order lunch everyday, there are some people that tend to bring their own meals but once in a while they order lunch through the system and there are employees who use the system every day. Describe the three different kind of users as discussed in chapter 1 the company has to accommodate for this interface, what is typical for each user type and how should the interface address this? 12 Points
2. Life-critical systems: 6 Points
 - a) Describe the characteristics of a Life-critical system and its uses.
 - b) What are typical areas that depend on Life-critical systems? (Name 4 examples)
3. Name and Describe the three Pillars of Design. 12 Points
4. Discuss the topic of direct manipulation, briefly describe what it means and what the benefits and drawbacks of direct manipulation are? 10 Points
5. You are redesigning the feedback messages for an application. There are three types of messages: notifying messages (information for the user, no immediate response necessary), critical messages (user response needed), urgent messages (user needs to respond immediately). How would you design the different messages? How would you address the issue of getting the users attention relative to the urgency of the message? Describe and justify a different highlighting scheme for each, you can use drawings to explain your decisions. 20 Points
6. The company *Singing Bottle* approaches you and wants you to design a hiker's water bottle with an integrated music player. Describe the process of designing this device. In detail talk about the different stages of this process and the term 'design cycle' and why it is called so? You can refer to the LUCID design principles or other descriptions of the stages of the design process. 20 Points
7. *Singing Bottle* furthermore asks you to propose details for a usability test to be conducted for the the hiker's music playing water bottle. You have a time frame of two weeks for running the study and evaluating the data and a maximum of 15 subjects should be tested. Describe what is tested, who are the subjects that are tested, what are the different parts of the usability test, what legal issues (user rights) have to be taken care of and how does the actual usability test work. 20 Points