

Exam 1

Chapter 1

In this chapter the main focus is on introducing the concept of user centered design and how this affects the creation of User Interfaces. As per this discussion we have discussed interfaces that you have used in the past both in areas that you thought were both good and bad. I want you to extend this thought further and think more on how this would impact the creation of a user interface that you might develop or use in your future. Answer the following questions:

- a. In your daily life you encounter many different user interfaces from those that are computerized to those that are found on our household appliances. As per this use we often think of ways to improve these interfaces and believe that things would work so much better if we just consulted on this design. I want you to think about a scenario like this and answer the following questions:
 - i. What is the user interface in question?
 - ii. How could you improve upon it?
 - iii. Based on the knowledge you have at the moment how would make this improvement, i.e. what adjustments would have to be made to the UI?
 - iv. What level of your involvement would need to occur for this improvement to take place?
 - v. At what stage of the development would you have to be involved?
 - vi. In this scenario what level of stakeholder would you be?
 - vii. Unfortunately, in most situations it is often the case that users or stakeholder are ignored when it comes to their suggestions. You have established the interface and you developed an improvement the next step is creating a persuasive argument. How would you get the designers or managers to follow your proposal?
- b. Now that you put your user hat on the other end of the spectrum is that of the developer or designer. Answer the following questions based on this scenario above:
 - i. A user has given you a proposal as to how they believe you can improve your software, how do you evaluate their idea?
 - ii. Who should decide to implement it?
 - iii. If you decide to not go with the idea how would you address this with the person who made the suggestion?
 - iv. What ways could you allow for user feedback in the future? How would you encourage your stakeholders to make suggestions and that their ideas are valuable?

Chapter 2

Chapter two is primarily on the topic of gathering information from users in terms of how they use the interface and what their needs are with the new development. Answer the following questions:

- a. I want you to pretend you own a business and you are in the process of designing a user interface. The following questions deal with the gathering information from the users so that this UI can be developed.
- i. The book describes the following methods to gather information. Give a scenario for each as to how you would perform them within your business:
 1. Direct Observation
 2. In direct Observation
 3. Interviews
 4. Surveys/Questionnaires
 - ii. Each of the above methods have issues as to their application and can result in problems when they are directed towards stakeholders? Describe techniques you will apply to get your users to open up and give you valuable information for each of the above items.
 - iii. Which method would you rely on most in this scenario? Why?
 - iv. Which would you use the least? Why?
 - v. Now think of each of the four methods above as a user. How do you feel when these are being conducted on you as a systems user? Explain how you react to each of the methods above? Why do you react this way? What are some methods the reviewer could make you feel more comfortable? Remember these when you are performing these tasks on others.
 - vi. The textbook gives an example where the users of a ticketing system were rubbing coins on the side of the machine and the designers only figured out what was happening when they went and observed. Think of some user interface where you did a task that would likely not be considered by the original developer and could only be found out through observation. Why led you to perform this task in this manner?

Question 3

Chapter three is on finding out who your users are and using this as an indicator as to meet their needs. In the book they using the example of users of an ATM system and broke this down into three categories which examined each of the user characteristics. This is illustrated in a chart on page 45 in the text. What I would like you to do is develop your own scenario that you are going to examine. I would recommend aligning this with either the above question or the topic of your project that way it is something you would not have to duplicate. You are to take the UI and break it down into three user groups and describe each of the characteristics similarly to the chart in the book.

- a. Once you have your chart the next step is to create a persona for each of the three groups you established. Flesh out the back story of these fictional people and describe how they will interact with the interface in question.

Question 4

In chapter 4 the primary discussion is on users and performing task analysis. For this question what I would like you to do is extend from the work you did on the previous two questions and apply the topics of this chapter:

- a. Based on the scenario that you started in question 3, I want you to develop a Task scenario. For this you should use one of the Personas you created and describe a task and how they would use a system. The rest of the personalized details can be made up.
 - i. After you create the task scenario next develop a concrete use case. You do not have to worry about the formatting just make sure that there is a clear distinction between the user and the system.
 - ii. The next step would be to condense this down and create an essential use case
 - iii. After creating these three which do you find to be the most effective when it comes to explaining what a user does in terms of tasks? Why?
- b. Once you have developed all of the above models the next part is to focus on the cognitive pieces in relation to the development of user interfaces:
 - i. Think of a task that you perform on a daily basis, this could be from any aspect of your life. Answer the following questions on this:
 - 1. What is the task?
 - 2. What part of it is physical?
 - 3. How much of it consists of mental?
 - ii. Are there areas of knowledge that need to be known and established before the task can be completed?
 - iii. To what extent would the end result be effected if this knowledge was not present?
 - iv. I would like you to now take one of the tasks you wrote above and create a cognitive walkthrough on it.
 - v. Once you create the walkthrough answer the following questions:
 - 1. How beneficial did you see the process?
 - 2. Was the task able to pass the three questions?
 - 3. Did the result end up surprising you?