**TIM 58: Systems Analysis and Design**

**Homework Set #3**

*Due as a paper copy in class at the beginning of class Tuesday January 31.*

Provide short-medium paragraph answers to the following questions.

1. **(This is the repeat of question 7 from Homework #2.) As pointed out in class, there is a mistake in the calculations in Figure 2-16 in the book. What is that mistake? What part of the use case analysis gets left out if that mistake goes undetected and why is that important? How many hours of work are lost in the final estimate of work effort (show the calculation)?**
2. **First define and then compare and contrast *problem analysis* and *root cause analysis*.**
3. **Under what conditions would you use problem analysis? Under what conditions would you use root cause analysis?**
4. **Explain the difference between a closed-ended question, an open-ended question, and a probing question. When would you use each?**
5. **Explain the difference between a top-down and bottom- up interview approach. When would you use each approach?**
6. **In class, Professor Haddad suggested a different approach to organizing the order of interview questions. What was it and why did he say he prefers is?**
7. **What information is typically included in a system proposal? How is it organized? What is the role of the Executive Summary?**
8. **Visit the following site and click on “attendee information:”** [**http://www.hackucsc.com/**](http://www.hackucsc.com/) **Review the information. A hackathon is a weekend coding contest in which teams develop concepts and business ideas and compete for prizes. You have been asked to interview student participants to learn more about their experience with the web page. The goal is to improve the information system for next year’s hackathon. Prepare a list of at least 3 open-ended questions and 3 closed-ended questions that would help you identify how the “as-is” system was used and how it can be improved. After each question write in *italics* why you are asking the question, that, is, what you hope to learn from the answers you will get*.* (The students you interview won’t see the italics – it’s just so you can be clear on why you are asking the question.)**
9. **For Minicase #1, what Requirements Analysis strategies would you recommend for this situation? Suggest at least two strategies and explain why you recommend them using details found in the Minicase.**
10. **Provide your analysis of Minicase #3. (Hint: First explain what Observational Analysis is and what its best practices are. Then explain whether the actions of Barry were consistent with best practices and why. Be as specific as possible.)**
11. **Compare the concept map in Figure 3-10 on p 111 of our book with the sample requirements definition in Figure 3-1 on p. 90. These two depictions are explaining the same system. Provide an example of one superior quality each has compared to the other. Thinking about the various stakeholders in the development of a new information system for this doctor’s office, which stakeholders would prefer to see the information in the form of Figure 3-1 and which would prefer to see the information in the form of Figure 3-10? Why?**