Due: 3/3/2017 at 11 PM
Student: Lina Mi

CSC 7400 Assignment2: System Activities

This is a written assignment. Show all steps as you work through the assignment (type all your analysis and answers into this document). When finished, you will submit the document to the instructor via Blackboard for grading. Do not submit zip files or individual images. If you have any questions or need any clarification, see the instructor *before* the deadline.

1. Which area of system requirements are more critical in requirements analysis, functional or non-functional requirements? Why?

   Ans: Non-functional requirements are more critical in requirements analysis, because:

   1) Non-functional requirements may affect the overall architecture of a system rather than the individual components

   2) An individual non-functional requirement may generates several related functional requirements that define new system services that are required if the non-functional requirement is to be implemented

2. Why is it not appropriate to use natural language to development system requirements?

   Ans: natural language is potentially vague and ambiguous, its interpretation depends on the background of the reader.

3. When should one uses tables to document system requirements?

   Ans: When it is still difficult to write requirements in a clear and unambiguous way using structured natural language, especially when complex computations are to be specified. Tables are particularly useful when there are a number of possible alternative situations and you need to describe the actions to be taken for each of these situations.

4. What is system modeling? Why a system model generally is not a comprehensive description of the system?

   Ans: system modeling is the process of developing abstract models of system, with each model representing a different view or perspective of that system. It

   System model is generally not a comprehensive description of system, because it always purposely leaves out detail to make it easier to understand, furthermore model is abstraction of the system being studied rather than an alternative representation of that system, it deliberately simplifies a system design and picks out the most salient characteristics.

5. Is it possible to implement a web-based system using only the Controller and View components of the Model-View-Controller pattern, without the Model component?

   Ans: if we could implementing a web-based system using only the Controller and View components of the Model-View-Controller pattern without the Model component depends on application situations, because each of three components in MVC pattern plays its own role I in the whole pattern: Model component manages system data and associated operations on that data; the component of View defines and manages how the data is presented to the user; while the Controller component manages the user's interactions and pass these interactions to the component of Model and View. From the figure 6.4 of text book, web application architecture using MVC pattern, it can be seen that the component of View and Controller are mutually dependent closely, they are indispensable parts of MVC pattern; whilst component of Model only provides the change notation to component View, and takes information from component View and Controller, so the Model component is relatively independent of other two components of MVC pattern, so it is possible that the MCV pattern is implemented without the part of Model. In the case of web-based system where View component is HTML page and the controller is responsible of collecting dynamic data and generates the content of web page, Model component is represented by the actual content and generally stored in a database or XML files. It is also important part of the MVC pattern in most cases of web-based system.