Specification-Based Testing and Analysis Assignment (Version 4.0, Fall 2011)

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ANALYSIS OF THE GOOGLE DOCS (PRESENTATION) SPECIFICATION

The lecture on specification-based testing describes using a concept mapping tool to create a representation of the Heuristic Test Strategy Model (HTSM) and describes using the HTSM map to analyze a specification. Your task is to apply this to the Presentations component(s) of Google Docs.

Focus on the specifications for Google Docs at http://docs.google.com/support/?hl=en. Pay particular attention to the Presentations, at http://docs.google.com/support/bin/topic.py?hl=en&topic=15116 Use the documentation on text documents and spreadsheets (and OpenOffice impress and MS PowerPoint) as reference oracles.

Use XMind (http://www.xmind.net/) as your concept mapping tool.

You are NOT required to actually test the program against the specification, although you might have to play with the program to figure out what the specification is saying.

Here are some additional details:

- After you have skimmed the HSTM and the specification, create a concept map and structure it to show the HSTM.

- Work through the Google Presentations specification, populating the HSTM with subtopics. Use the other docs for ideas about features that appear to be in Google Presentations but that are not documented there.

- Every sentence of a specification should be telling you what the product is (Product Elements), in what way it is good or bad or needs to get better (Quality Criteria), or how it will be built and the context in which it will be built (Project Environment). As you find information about the product, note it under one of the topics or subtopics under these main headings. Most of your entries will be in Product Elements and Quality Criteria.

- In some cases, you might see two places to note an item. That's OK. Choose whichever one feels most appropriate to you or put your note in both places.

- Notation: When I say, "`Product Elements | Data` ", I mean that "`Data`" is a subtopic of "`Product Elements.`" So, for example, the Position and Size of a table could be two sub-topics of `Product Elements | Data | Persistent Data.` You would add your testing ideas about Size to your subtopic on `Product Elements | Data | Persistent Data | Size.`

- When you enter a piece of information, think of the risks that might be associated with that. For example, consider `Elements | Data | Persistent Data | Size.` If there are several risks, I would create a series of subtopics to Size, one for each risk.

    1. Examples o f risks: The table might be too large for the slide. The table might have too many rows or columns and so it might be impossible to display the data on the slide. The table might have too many rows and so entering anything takes impossibly long, as does refreshing the screen.

2. For each risk, I would then enter one or more testing notes, either as a Note or as another subtopic. For example, if I am worried about performance consequence of a table with too many rows, I might have test ideas like this:

   - what is the maximum number of rows?

   - what is max number of cells (rows x columns)?

   - does performance change if I add data to the cells?

3. You might go a level further and describe tests that you would run, or you might leave that for a domain testing table (don't create that table for this assignment, but do create it if you ever have to analyze a specification in a real job).

- Allow about an hour to install XMind and create the HTSM in XMind. After that, do the specification analysis for 3-4 hours and then stop. You won't be finished, but you'll have a lot of analysis complete.

- After you have completed your analysis, please post it in the discussion forum. Then review the specification analysis created by one of the other students and

   1. identify some ways in which yours and theirs are similar,

   2. some ways in which they are different, and

   3. how they might improve their analysis, and

   4. how their analysis suggests ways that you could improve yours.

- In the forum post where you put a copy of your assignment, please include some comments on this method. Would you use this method for analyzing specifications? Why or why not? How would you improve it? What is it missing?