

# **Full Design and Specification**

## **Assignments & Requirements:**

### **Design Specification**

We will be following the Design-by-Level theory for the design specification. From your previous assignment, you have already completed the conceptual-model. You may optionally submit any revisions you have.

### **Semantic Level Design**

Semantic diagram gives an organized listing of the functionality of a system. This should include at least 4 functions, with their parameters, description, feedback, and errors.

### **Syntactic Diagram**

This is a listing of user actions and system responses. You should have at least a high level syntactic diagram, and then go into detail on 2 subsystems. These two subsystems could be the commands that are in your task analysis for instance.

### **Lexical Model**

This is a glossary for each of the user actions and system responses that you have highlighted in your syntactic diagram.

## **Documentation and Guidelines**

Prepare a 1 page piece of documentation describing your product to your user. This can be done in paragraphs, using lists, or images. The more self-evident the tool is the better! There is no need to discuss things like the operating system, files to install, etc. Assume the system is already running and you have 1 page to inform the user about what is interesting about your tool.

Secondly, prepare a list of guidelines document that your team is going to use to implement this project. These could be style guidelines for instance about how different components will go together. These could also be team guidelines, discussing how the code would be organized, what color schemes will be used, or other ideas you have. This document need not be longer than 1 page (but if you find it helpful, you can expand as long as you like). Your guidelines should have the following:

- A goals section - What is the goal of your guideline (this can be brief)
- A design principles section (See the iOS style guide below) for inspiration.

## **Task-Command Analysis**

Perform a task-command analysis using the KLM model. You should perform the task-command analysis for each of your 3 functionalities that you highlighted in your previous assignment. Make sure to have an analysis at the end, where you can comment on improvements/ insights found after doing the analysis (if it is perfect, then comment why).

## **Assumptions**

Throughout your assignment, state any assumptions that you may have. In each category, the goal is that this is self-evident, but you may add additional information as you see fit.

## **Organization**

Please use bulleted lists and tables where appropriate. Start to think of your deliverables as a blueprint, such that another team in the class could follow along with your project. Use pictures, video, and add elements as you see appropriate. Be sure to cite all references!

## **Deliverables:**

A PDF containing:

- Design Specification
- Documentation and Guidelines
- Task-Command Analysis

## **Update Log:**

We update syntactic diagram and add lexical model with glossary of user actions and system responses missing.