

CS108 Assignment 2: Phonebook Application (detailed design and class structure).

DUE DATE: TUESDAY 28 SEPTEMBER 2004

Learning Objective

This assignment will build upon the requirements gathering and initial design you did in assignment 1, and get you started with implementing an application to meet those requirements. You will create a more detailed design for the main behaviors of the application and implement a first pass of the application.

Problem Statement

In your first assignment, you modeled the function (e.g. behavior) of this phone book application. Now that you have a requirements specification and high-level design for the objects involved, you will begin to flesh out the details for the application.

Begin to implement the phonebook application.

- Create a PhoneBook class. On this class, create methods for the main actions of the phonebook application.
- Use the method *main()* to display a menu to the user. The menu will display the primary first-level actions defined by your UML use-case diagram. Prompt the user to make a selection from the menu, and then call the appropriate method on the phonebook class.
- For now, the methods that implement the main behaviors can be empty shells – all they should do is print out a message stating which option has been selected (example: “Add Entry”), and then prompt the user to return to the menu.
- Develop the behavior (a.k.a. algorithm) that must be undertaken by the program in each method. You should use pseudocode (in a manner similar to that used in chapter 4) to break down each action that needs to be taken, including displaying text to the user, prompting for input, the names of variables used to hold data, selection among alternatives, and repetition.
- Your application does not need to collect actual names or phone numbers or do any searching at this time – we’ll do this later on when we talk about I/O and data structures. However, any additional prompting and collecting of variables that you do at this time will be a very useful learning experience – a way for you to get comfortable doing these tasks without the risk of it counting towards the assignment grade.

Deliverables

Since I have provided you with feedback on assignment 1, you should revisit it and resubmit it with this assignment. The complete list of deliverables for assignment 2 is as follows:

- The UML use-case diagram and explanatory narratives.
- The UML class diagram.
- The pseudocode for each of the major methods on the PhoneBook class.
- The java code file(s) (*.java).

In addition, turn in an executive summary of no more than 1 page, which will serve to introduce the requirements, design, diagrams, class structure and pseudocode.

QUESTIONS: EMAIL ME: azs@aaronstevens.net.