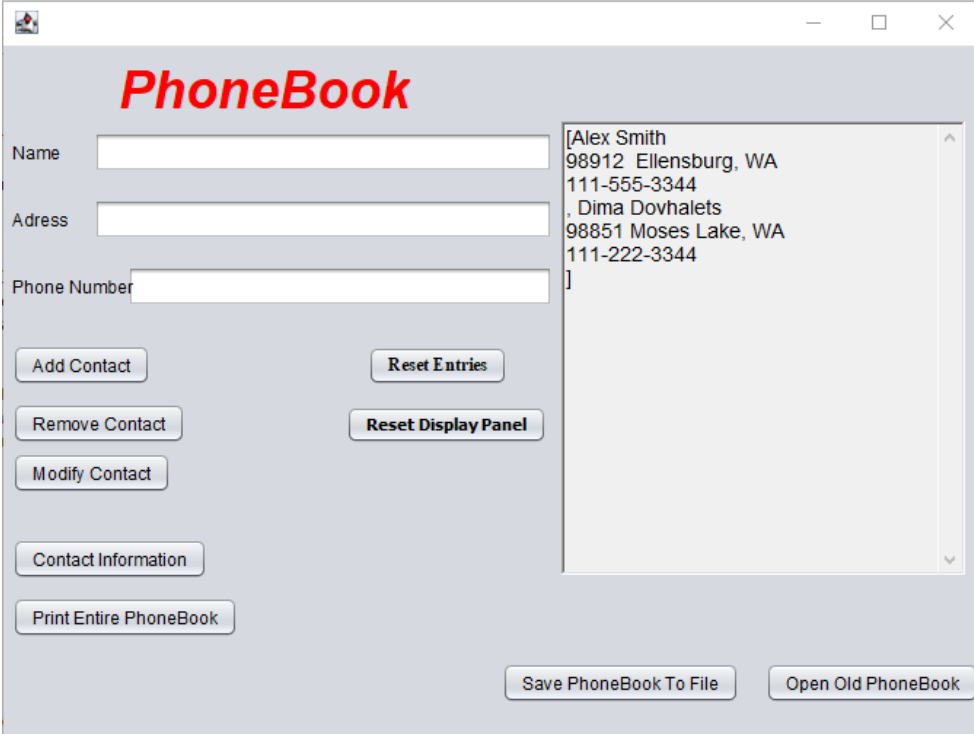


Lab Assignment 3

Phone Book Application

Sample GUI for the Phone Book Application.



The image shows a sample GUI for a Phone Book Application. The window has a title bar with standard minimize, maximize, and close buttons. The main area has a light gray background. At the top left, the title "PhoneBook" is displayed in a large, bold, red font. Below the title, there are three input fields for "Name", "Address", and "Phone Number". To the right of these fields is a large text area containing contact information for two people: "Alex Smith" with address "98912 Ellensburg, WA" and phone "111-555-3344", and "Dima Dovhalets" with address "98851 Moses Lake, WA" and phone "111-222-3344". The text area is enclosed in a box with a vertical scrollbar. Below the input fields and text area, there are several buttons: "Add Contact", "Remove Contact", "Modify Contact", "Contact Information", "Print Entire PhoneBook", "Reset Entries", "Reset Display Panel", "Save PhoneBook To File", and "Open Old PhoneBook".

PhoneBook

Name

Address

Phone Number

[Alex Smith
98912 Ellensburg, WA
111-555-3344
Dima Dovhalets
98851 Moses Lake, WA
111-222-3344
]

Add Contact

Remove Contact

Modify Contact

Contact Information

Print Entire PhoneBook

Reset Entries

Reset Display Panel

Save PhoneBook To File

Open Old PhoneBook

Lab Assignment 3

Phone Book Application

CS 302 – Advanced Data Structures and File Processing

Description

Write a program that maintains the names, addresses, and phone numbers of your friends and relatives and thus serves as an address book. You should be able to enter, delete, modify, or search this data. The person's name should be the search key, and we can assume that the names are unique. The program should be able to save the address book in a file for the use later. When tested, a new empty address book is going to be created in the beginning.

Implementation

Design a class named *Person.java* to represent people in the address book and another class named *PhoneBookDriver.java* to represent the address book itself. The phone book driver should contain a binary search tree of people as a data member. An implementation of a binary search tree (*BinarySearchTree.java*) can be found on Canvas in the lab directory. To save/load the phone book, you will need to use the *ObjectOutputStream* with *FileOutputStream* and make sure your classes implement the *Serializable* interface.

Your interface should be a GUI, similar to the one on the previous page for up to 20 points for this part of the assignment. Or it can be standard input/output in the console for up to 10/20 possible points.

Submission

For your submission, upload all of the files necessary to run the project. For best results upload the zip file of the project folder.

This is an individual assignment. Therefore, a submission is required from each student.

Deadline: on Canvas