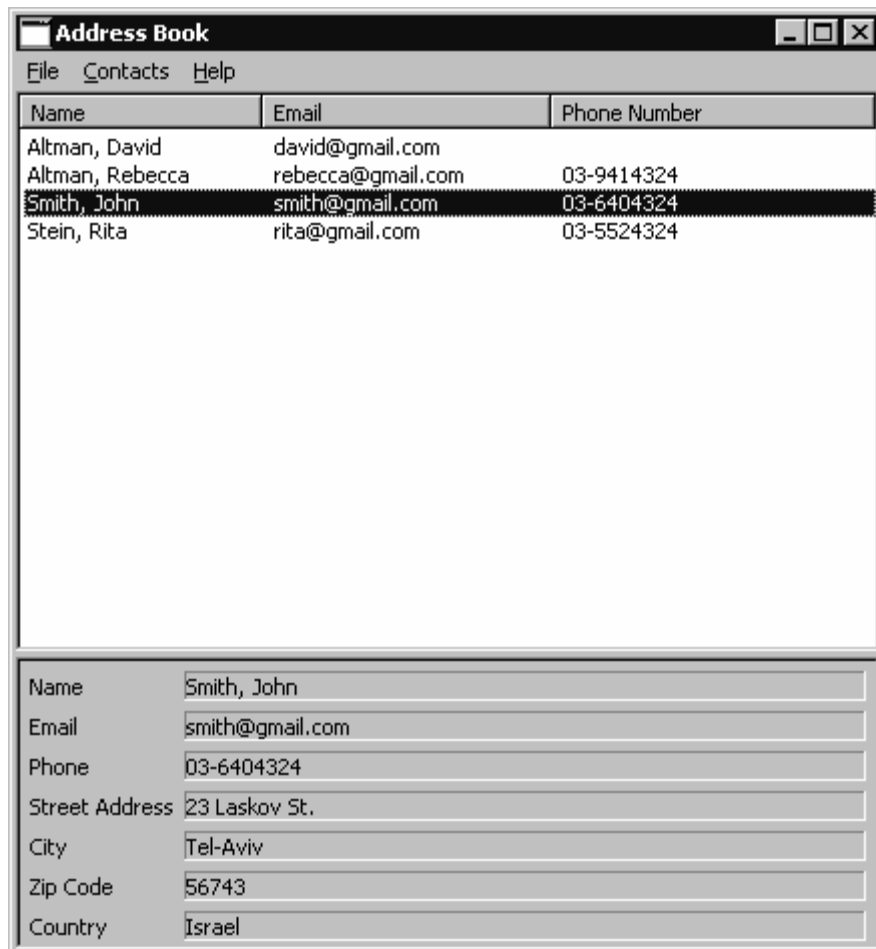# Exercise No. 13
Address Book – Part II
Due Date: 21/06/2007

This is the second part of the address book application assignment. In this part of the assignment you will use the Standard Widget Toolkit (SWT) to implement a graphical user interface (GUI) for your address book. A special care should be given to the model-view separation paradigm, which dictates that the model (logic and functionality) of an application should be separated from the visual representation (the GUI in our case).

The GUI will be implemented in one class named `GUIAddressBookViewer`. A template for this class can be found on the course web-site. If you run the application (instructions for installing and running an SWT-based application are below), you can see that the GUI is a window consisting of three parts (see the figure below for a snapshot):

- a menu bar
- a table for showing all the contacts (should be ordered by name alphabetically)
- a form for showing the full details of the currently selected (in the table) contact

Your assignment is to support all the options of the menu bar, that is:
- File→New Address Book: Create a new, blank, address book
- File→Open: Load an address book from a file, using the standard file open dialog
- File→Save: Save an address book. If it was open from a file, save it to the same file. Otherwise, request a filename in a standard file save dialog
- File→Exit: Exit the application
- Contacts→New: Open a dialog asking for the details of the new contact; create a new Contact accordingly.
- Contacts→Edit: Edit the details of the currently selected (in the table) contact; use the same dialog box as the one for creating a new contact.
- Contacts→Delete: Delete the currently selected contact from the address book.

Notes:
- Before performing a File→New/Open/Exit operation, you should check that there are no unsaved changes to the current working address book, and if this is not the case, show a message box asking the user to confirm or allowing him to save the current address book before exiting.
- The table should always be consistent with the address book's content.
- Decide which exceptions should be handled and how (e.g. showing a message box telling the user about the problem). Any reasonable decision will be accepted.
- Fill in the table with the contacts of the address book, in alphabetic name order (as in exercise 8), including keeping it synchronized with the address book.
- On highlight (selection) of a table row, fill in the full details in the form below it. On double click (default selection) perform the Contact->Edit functionality.
- The setHeaderVisible method of the Table class is buggy under Linux. As a result, on Linux the column names of the table might be invisible (see https://bugs.eclipse.org/bugs/).

Configuring Eclipse to use the SWT Libraries and Running an SWT-based Application:

- Download the .zip of SWT 3.1 for your platform. For Windows, you should download a zip file named "swt-3.1-win32-win32-x86.zip" by visiting http://www.eclipse.org/downloads/download.php?file=/eclipse/downloads/drops/R-3.1-200506271435/swt-3.1-win32-win32-x86.zip. For other platforms go to http://www.eclipse.org/swt/ .
- Follow the instructions in http://www.eclipse.org/swt/eclipse.php
  Note: To open the properties dialog of your Java project, click right click on you project in the package explorer view.

הוראות הגשה:

1. קראו בעיון את קובץ נוהלי הגשת התרגילים אשר נמצא באתר הקורס.

2. הגשת התרגיל (קובץ zip המכיל את קבצי ה-java. של התכניות שהתבקשת לכתוב) תעשה ע"י המערכת VirtualTAU (http://virtual.tau.ac.il) עד ליום חמישי 21.06.2007 בחצות. הוראות שימוש במערכת ישנם ב- http://virtual2002.tau.ac.il/upload/misc/main1.html

3. כמו כן, יש לשים תדפיס של קבצי ה-java. בתא הדואר של בודק התרגילים עד יום ראשון 24.06.2007 בחצות. יש לציין שם מלא ות"ז.