



<b>Course Title:</b>	Intro. To Software Engineering	<b>Session:</b>	2017-2021
<b>Course Code:</b>	SE-126	<b>Semester:</b>	Fall-2018
<b>Instructor:</b>	Engr. Afzal Ahmed	<b>Date:</b>	29 <sup>th</sup> Jan 2019
<b>INSTRUCTIONS:</b> i. There shall be no submission after deadline. ii. Report shall follow the IEEE standards. iii. Copied report shall result in zero marks no matter who copied whom.			

**Roll Number**

**Signature**

Sr. No.	Task Description	CLO	BTL	Marks
1)	Please use the concepts of interaction models and <b>draw</b> a usecase diagram for the given case study.	2	C-3	10
2)	Please use the concepts of behavioural models to <b>sketch</b> the sequence diagrams for the process using the object model you designed.	2	C-3	15
3)	Please prepare a class diagram for the given case study.	2	C-3	15

**CLO:** Course Learning Outcome, **BTL:** Bloom's Taxonomy Level

### Case Study

The software to be designed is a program that can be used to maintain an address book. An address book holds a collection of entries, each recording a person's first and last names, address, city, state, zip, and phone number.

It must be possible to add a new person to an address book, to edit existing information about a person (except the person's name), and to delete a person.

It must be possible to sort the entries in the address book alphabetically by last name (with ties broken by first name if necessary), or by ZIP code (with ties broken by name if necessary).

It must be possible to search for an entry containing a given text in the person's name or other information about the person. Customer needs this part of the system in first month.

It must be possible to print out all the entries in the address book in "mailing label" format.

It must be possible to create a new address book, to open a disk file containing an existing address book to close an address book, and to save an address book to a disk file, using standard New, Open, Close, Save and Save As ... File menu options. The program's File menu will also have a Quit option to allow closing all open address books and terminating the program. Customer need this part of the system in the later month.

The initial requirements call for the program to only be able to work with a single address book at a time; therefore, if the user chooses the New or Open menu option, any current address book will be closed before creating/opening a new one. A later extension might allow for multiple address books to be open, each with its own window which can be closed separately, with closing the last open window resulting in terminating the program. In this case, New and Open will result in creating a new window, without affecting the current window.



The program will keep track of whether any changes have been made to an address book since it was last saved, and will offer the user the opportunity to save changes when an address book is closed either explicitly or as a result of choosing to create/open another or to quit the program.

The program will keep track of the file that the current address book was read from or most recently saved to, will display the file's name as the title of the main window, and will use that file when executing the Save option. When a New address book is initially created, its window will be titled "Untitled", and a Save operation will be converted to Save As ... - i.e. the user will be required to specify a file.

**Good Luck**