

## Homework 6b

### *Test Plan*

Program Menu:

What would you like to do?

0:	Add a new record	1:	Modify a record
2:	Print a record	3:	Print all info
4:	Delete a record	5:	Quit the program

\* Records loaded at start.

Test	Input	#Records	Result Pass/Fail
<b>0:</b> Start the program then exit without performing any other action(s).  <b>Expected result:</b> Exits (displays goodbye) without error.	> addrBook 5	0	Pass
<b>1:</b> Start the program with an invalid argument.	> addrBook -d	0	Pass
<b>2:</b> Start the program with an invalid number of arguments.	> addrBook debug something	0	Pass
<b>3:</b> Start the program with the debug argument; exit the program.	> addrBook debug 5	0	Pass
<b>4:</b> start the program normally.	> addrBook	0	Pass

messages.			
<p>5: Add record; print out the list; select quit.</p> <p><b>Expected result:</b> Print out of the added record.</p>	0 Testy McGee 1921 123 Four Street  Hollywood, CA 90202 899-123-2134 3 5	0	Pass
<p>6: Close program and reopen; select option to print all records.</p> <p><b>Expected result:</b> On load, announces to the user that one entry has been loaded (normal operation); prints the previous record added; then prints menu again (normal operation).</p>	> addrBook 3 5	1	Pass
<p>7: Add another record; print out the list; quit.</p> <p><b>Expected result:</b> prints out the previous record and the new record; then prints menu again; quits without error.</p>	> addrBook 0 Luke Skywalker 1924 123 Four Street  Tatooine, SY 90202 123-2134 3 5	1	Pass
<p>8: Add two more records; print out the list;.</p> <p><b>Expected result:</b> Prints the four records added to the list; then prints menu again; quits without error.</p>	0 Princess Leia 1992 23 Jordan St Apt B Honolulu, HI 96892 808-555-9876 0 Jack and Jill 1980 1 Pail of Water  Up-a-hill, TN 82313 810-234-1234 3 5	2	Pass

<p><b>9:</b> Remove first element in list; print out list; quit.</p> <p><b>Expected result:</b> print out the list less the first record (Testy McGee); then prints menu again; quits normally.</p>	<p>4 Testy McGee 3 5</p>	4	Pass
<p><b>10:</b> Remove the last item in the list (Jack and Jill); Print the list; quit.</p> <p><b>Expected result:</b> Display's message stating 1 item has been deleted; print the two remaining items in the list; then prints menu again; quits normally.</p>	<p>4 Jack and Jill 3 5</p>	3	Pass
<p><b>11:</b> Remove the remaining elements in the list (Luke Skywalker and Princess Leia). Print out list; quits.</p> <p><b>Expected Result:</b> Prints 'Address Book is empty'; then print menu again; quits normally.</p>	<p>4 Luke Skywalker 4 Princess Leia 3 5</p>	2	Pass
<p><b>12:</b> Attempt to delete an item from an empty list; quit;</p> <p><b>Expected result:</b> Prints 'Address Book is empty'; then print menu again; quits normally.</p>	<p>4 5</p>	0	Pass
<p><b>13:</b> Add duplicate records to list; select print all; quit.</p> <p><b>Expected result:</b> The two duplicate entries; then prints the menu again; quits normally.</p>	<p>0 Luke Skywalker 1924 123 Four Street  Tatooine, SY 90202 123-2134 0 Luke Skywalker 1924 123 Four Street  Tatooine, SY 90202 123-2134 3</p>	0	Pass

<p><b>14:</b> Delete by name Luke Skywalker; print all records; quit.</p> <p><b>Expected result:</b> Prints 'Address Book is empty'; then prints the menu again; quits normally.</p>	<p>4 Luke Skywalker 3 5</p>	2	Pass
<p><b>15:</b> Add three records consisting of two duplicate entries to the end of list; print all records; quits.</p> <p><b>Expected result:</b> prints out the three items (including the two dups) made to the address book; then prints menu again; quits normally.</p>	<p>0 Luke Skywalker 1924 123 Four Street  Tatooine, SY 90202 123-2134 0 Anakin Skywalker 1901 7 Electric Ave  New York, NY, 12904 899-123-2134 0 Anakin Skywalker 1901 7 Electric Ave  New York, NY, 12904 899-123-2134 3</p>	0	Pass
<p><b>16:</b> Select Anakin Skywalker (the duplicate entries at the end of the list) for deletion; print all records; quit.</p> <p><b>Expected result:</b> Prints the non-duplicate (Luke Skywalker) item left in the addrBook; then prints menu again; quits normally.</p>	<p>4 Anakin Skywalker 3 5</p>	3	Pass
<p><b>17:</b> Add 2 items; one a duplicate of the first item already in the list (Luke Skywalker); print all records; quit.</p> <p><b>Expected result:</b> Print the last item in the addBook (Anakin Skywalker); removed both the</p>	<p>0 Luke Skywalker 1924 123 Four Street  Tatooine, SY 90202 123-2134 0 Anakin Skywalker 1901</p>	1	Pass

duplicate entries; then prints menu again; quits normally.	7 Electric Ave  New York, NY, 12904 899-123-2134 3 5		
<b>18:</b> Select the duplicate at the beginning of the list for deletion; print all records; quit.  <b>Expected result:</b> Prints the list (less the two duplicates at the beginning) consisting of one item Anakin Skywalker; then prints menu again; quits normally.	4 Luke Skywalker 3 5	3	Pass
<b>19:</b> Add 3 records; print all records; quit.  <b>Expected result:</b> Prints out the four items in the addrBook; then prints menu again; quits normally.	0 Luke Skywalker 1924 123 Four Street  Tatooine, SY 90202 123-2134 0 Princess Leia 1992 23 Jordan St Apt B Honolulu, HI 96892 808-555-9876 0 Jack and Jill 1980 1 Pail of Water  Up-a-hill, TN 82313 810-234-1234 3 5	1	Pass
<b>20:</b> Select to delete name matches third record; print list; quit.  <b>Expected result:</b> Prints the same output as the previous step less Princess Leia; then prints menu again; quits normally.	4 Princess Leia 3 5	4	Pass

<p><b>21:</b> Delete name matches the first record from list with 3 records; print all records; quit.</p> <p><b>Expected result:</b> Prints the two records for Luke Skywalker and Jack and Jill; then prints menu again; quits normally.</p>	<p>4 Anakin Skywalker 3 5</p>	3	
<p><b>22:</b> select to print Luke Skywalker; quit.</p> <p><b>Expected result:</b> prints the record with the name Luke Skywalker; then prints menu again; quits normally.</p>	<p>2 Luke Skywalker 5</p>	2	Pass
<p><b>23:</b> Add a duplicate to the list. Select to print the duplicate; quit.</p> <p><b>Expected result:</b> Prints both the original and duplicate entries; then prints the menu; quit normally.</p>	<p>0 Luke Skywalker 1924 123 Four Street  Tatooine, SY 90202 123-2134 2 Luke Skywalker 5</p>	2	Pass
<p><b>24:</b> Delete all items in list; try print by name; quit.</p> <p><b>Expected result:</b> Prints a messages telling the user the addrBook is empty; then prints the menu; quit normally.</p>	<p>4 Luke Skywalker 4 Jack and Jill 2 5</p>	3	Pass
<p><b>25:</b> Add 50 duplicate records; print all record; quit.</p> <p><b>Expected result:</b> Prints all 50 records; then prints the menu; quit normally.</p>	<p>0 Luke Skywalker 1924 123 Four Street  Tatooine, SY 90202 123-2134 ..(x50).. 3 5</p>	0	Pass

<p><b>26:</b> Delete all 50 duplicate records; print out the addrBook contents; quit.</p> <p><b>Expected result:</b> Prints message that 50 records have been deleted; prints a message that the addrBook is empty; then prints the menu; quits normally.</p>	<p>4 Luke Skywalker 3 5</p>	50	Pass
<p><b>27:</b> Attempt print all while list is empty; quit.</p> <p><b>Expected result:</b> Prints message telling user the list is empty is displayed; then prints the menu; quit normally.</p>	<p>3 5</p>	0	Pass
<p><b>28:</b> Add a record; print all; select menu option to modify that record; modify the address; print that/all record; quit.</p> <p><b>Expected result:</b> Prints the record as modified; then prints the menu; quit normally.</p>	<p>0 Luke Skywalker 1924 123 Four Street Tatooine, SY 90202 555-234-5555 1 0 Luke Skywalker 123 Force Ave  Rebel Base, Hoth 12329 3 5</p>	0	Pass
<p><b>29:</b> Add an identical record; select option to modify by name the records just added; print the records; quit.</p> <p><b>Expected result:</b> Prints the modified duplicates correctly; then prints the menu; quit normally.</p>	<p>0 Luke Skywalker 1924 123 Force Ave  Rebel Base, Hoth 12329 555-234-5555 1 Luke Skywalker 0 83 Dagobah Drive General Delivery Dagobah, TX 84924 3 5</p>	1	Pass

<p><b>30:</b> Add two records; Delete first item in list; print all records; quit.</p> <p><b>Expected result:</b> Correctly prints the two remaining items in the addrBook; prints the menu; quit normally.</p>	<pre> 0 Princess Leia 1992 23 Jordan St Apt B Honolulu, HI 96892 808-555-9876 0 Anakin Skywalker 1901 7 Electric Ave  New York, NY 12904 899-123-2134 4 Luke Skywalker 3 5 </pre>	1	Pass
<p><b>31:</b> Add new record with name too long; print all; quit.</p> <p><b>Expected result:</b> Prints a message that the name is too long and that it will be truncated and what it will be truncated to; executes the add with the truncated name; quits normally.</p>	<pre> 0 abcdefghijklmnopqrstuvwxy 1951 46011 Kuneki Pl  Kaneohe, HI 96744 555-555-5050 3 5 </pre>	2	Pass
<p><b>32:</b> Add new record, attempt a non-numeric year of birth; correct and print all; quit.</p> <p><b>Expected result:</b> When the user attempts to enter non-numeric yob, a message telling the user that's invalid is displayed and the user is asked again for yob; after correct prints all records normally; quits normally.</p>	<pre> 0 Christopher Foo one-thousand nine hundred eighty seven 1987 1111 Dole Street University of Hawaii Honolulu, HI 96822 808-555-5555 3 5 </pre>	3	Pass
<p><b>33:</b> Modify Christopher Foo's telephone number; print all; quit.</p> <p><b>Expected result:</b> correctly modify's the entry's telephone number and prints all records; quits normally.</p>	<pre> 1 Christopher Foo 1 808-555-5050 3 5 </pre>	4	Pass



<p><b>34:</b> Delete all entries, attempt to modify from empty addrBook; quit.</p> <p>Expected result: Deletes records successfully, and prints an error message telling the addrBook is empty when attempting to modify a non existent record.</p>	<p>4 Princess Leia 4 Anakin Skywalker 4 abcdefghijklmnopqrstuvwx 4 Christopher Foo 1 5</p>	4	Pass
<p><b>35:</b> Add record, attempt to enter address over length (80 total chars); correct address under length; print record; quit.</p> <p><b>Expected result:</b> prints an error message telling the user the address is too long and to please re-enter, asks for address again; prints corrected record; quits normally.</p>	<p>0 Jonh Doe 1999 abcdefghijklmnopqrstuvxyz abcdefghijklmnopqrstuvxyz abcdefghijklmnopqrstuvxyz 1 First Street Apt 1 Onesville, PA 16789 814-908-0987 3 5</p>	0	Pass
<p><b>36:</b> Attempt to modify record that doesn't exists; give up and quit.</p> <p><b>Expected result:</b> Prints an error message telling the user that record doesn't exist; quit normally.</p>	<p>1 john 5</p>	1	Pass
<p><b>37:</b> Attempt to print a record that doesn't exist; give up and quit.</p> <p><b>Expected result:</b> Prints a message telling the user there is no record matching their search name; quits normally.</p>	<p>2 john 5</p>	1	Pass