Project 1 Test Plan

Test #	Description	Inputs	Expected Outputs	PASS	FAIL
1	Start program with no arguments	./Proj1	Menu will display as below (1) Add a new record in the database (2) Modify a record in the database using the accountno as the key (3) Print information about a record using the accountno as the key (4) Print all information in the database (5) Delete an existing record from the database using the accountno as a key (6) Quit the program Please enter the number of the menu item to run:	X	
2	Modify Record (empty list)	2	"List is empty" Return to menu	X	
3	Print Record (empty list)	3	"List is empty" Return to menu	X	
4	Print All Records (empty list)	4	"List is empty" Return to menu	X	
5	Add a new record to empty list (no-duplicate)	1 Record 1 of testRecords	"Record added sucessfully" Return to menu	X	
6	Add new record to end of list (no-duplicate)	1 Record 3 of testRecords	"Record added sucessfully" Return to menu	X	
7	Add new record to middle of list (no-duplicate)	1 Record 2 of testRecords	"Record added sucessfully" Return to menu	X	
8	Print record at beginning of list	3 AcctNo of Record 1 of testRecords	135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990	X	
9	Modify Record at beginning of list	2 135792468 2012 Modified Ave. New York, NY, 50213$	"1 record(s) modified successfully." Return to menu	X	
10	Print All Records	4	135792468 Holly Day 135792468 2012 Modified Ave. New York, NY, 50213 1990 12345678 Barb E. Dahl 1415 Campus Rd. Honolulu, HI 96824 USA 1980 98765432 Anita Knapp 12 University Ave. Honolulu, HI 96824 1975 Return to menu	X	
11	Add a new record to beginning of list (no-duplicate)	1 Record 7 of testRecords	"record added sucessfully" Return to menu	X	
12	Delete record from end of list (no-duplicate)	5 AcctNo of Record 3 of testRecords	"1 record(s) deleted successfully." Return to menu	X	
13	print non-existent record	3 AcctNo of Record 3 of testRecords	"Specified record doesn't exist." Return to menu	X	
14	Modify record at middle of list	2 135792468 1000 School St. Honolulu, HI 96823$	"1 record(s) modified successfully." Return to menu	X	
15	Print record at middle of list	3 AcctNo of Record 1 of testRecords	135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990 Return to menu	X	
16	Delete record from middle of list (no-duplicate)	5 AcctNo of Record 1 of testRecords	"1 record(s) deleted successfully." Return to menu	X	
17	Delete record from beginning of list (no-duplicate)	5 AcctNo of Record 7 of testRecords	"1 record(s) deleted successfully." Return to menu	X	
18	Modify non-existent record (no-duplicate)	2 4444 44 Namae St. Fukuoka, Japan 49332-313$	"Specified record doesn't exist." Return to menu	X	
19	Delete last record in list (no-duplicate)	5 AcctNo of Record 2 of testRecords	"1 record(s) deleted successfully." Return to menu	X	
20a	Add duplicate record to empty list	1 Record 1 of testRecords	"record added sucessfully" Return to menu	X	
20b	Add duplicate record to empty list	1 Record 1 of testRecords	"record added sucessfully" Return to menu	X	
20c	Add duplicate record to beginning of list	1 Record 1 of testRecords	"record added sucessfully" Return to menu	X	
21a	Add a duplicate year record to end of list	1 Record 10 of testRecords	"record added sucessfully" Return to menu	X	
21b	Add a duplicate year record to end of list	1 Record 10 of testRecords	"record added sucessfully" Return to menu	X	
22	Modify duplicate year record at end of list	2 4556 190 Russia St. Boston, MA. 68293 USA$	"2 record(s) modified successfully." Return to menu	X	
23	print duplicate record at end of list	3 AcctNo of Record 10 of testRecords	4556 James Bond 190 Russia St. Boston, MA. 68293 USA 1945 4556 James Bond 190 Russia St. Boston, MA. 68293 USA 1945 Return to menu	X	
24a	Add duplicate record to middle of list	1 Record 8 of testRecords	"record added sucessfully" Return to menu	X	
24b	Add duplicate record to middle of list	1 Record 8 of testRecords	"record added sucessfully" Return to menu	X	

#	Description	Input	Expected Output		
25	Print all records (duplicates)	4	135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990 135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990 135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990 5654 Kilroy Lastinghaus 33 Nokellich rd. Juneau, Alaska 44862 1962 5654 Kilroy Lastinghaus 33 Nokellich rd. Juneau, Alaska 44862 1962 4556 James Bond 190 Russia St. Boston, MA. 68293 USA 1945 4556 James Bond 190 Russia St. Boston, MA. 68293 USA 1945 Return to menu	X	
26	Add duplicate record to end of list	1 Record 5 of testRecords	"Record added sucessfully" Return to menu	X	
27	delete duplicate record from middle of list	5 AcctNo of Record 8 of testRecords	"2 record(s) deleted successfully." Return to menu	X	
28	Delete non-existent record from list	5 AcctNo of Record 8 of testRecords	"The entered account number doesn't exist or the list is empty." Return to menu	X	
29	Delete duplicate record from beginning of list	5 AcctNo of Record 1 of testRecords	"3 record(s) deleted successfully." Return to menu	X	
30	delete duplicate record from end of list	5 AcctNo of Record 10 of testRecords	"2 record(s) deleted successfully." Return to menu	X	
31	Add duplicate record to beginning of list	1 Record 5 of testRecords	"record added sucessfully" Return to menu	X	
32	delete remaining duplicate records to empty list	5 AcctNo of Record 5 of testRecords	"2 record(s) deleted successfully." Return to menu	X	
33	delete from empty list	5 1000	"The entered account number doesn't exist or the list is empty." Return to menu	X	
34	print all from emptied list	4	"List is empty" Return to menu	X	
35	Quit program from menu	6	"Quitting program..." Program ends and control returns to console	X	
36	Start program and enter record for writefile tests	1 Record 4 of testRecords	"record added sucessfully" Return to menu	X	
37	Enter record for writefile tests	1 Record 6 of testRecords	"record added sucessfully" Return to menu	X	
38	Enter record for writefile tests	1 Record 7 of testRecords	"record added sucessfully" Return to menu	X	
39	Print All Records	4	1234 First M. Last 123 Address Ave Sacramento, CA 12345$ 2012 4444 Sir Namingway Jr. 43 Namae hwy. Fukuoka, Japan 4933-204-2333$ 1997 3003 Sir Albert Eyington III 234 Rokenhill Pl. Glasgow, Scotland 84935-31 1896 Return to menu.	X	
40	Quit program from menu to initiate writefile	6	"Quitting program..." Program ends and control returns to console	X	
41	Start program with no arguments to run readfile	./Proj1	Menu will display as below (1) Add a new record in the database (2) Modify a record in the database using the accountno as the key (3) Print information about a record using the accountno as the key (4) Print all information in the database (5) Delete an existing record from the database using the accountno as a key (6) Quit the program Please enter the number of the menu item to run:	X	
42	Print all records to test readfile	4	1234 First M. Last 123 Address Ave Sacramento, CA 12345$ 2012 4444 Sir Namingway Jr. 43 Namae hwy. Fukuoka, Japan 4933-204-2333$ 1997 3003 Sir Albert Eyington III 234 Rokenhill Pl. Glasgow, Scotland 84935-31 1896 Return to menu.	X	
43	Add a new record to ensure functionality	1 Record 8 of testRecords	"record added sucessfully" Return to menu	X	

Test #	Description	Inputs	Expected Outputs	PASS	FAIL
44	Print All Records	4	1234 First M. Last 123 Address Ave Sacramento, CA 12345$ 2012 4444 Sir Namingway Jr. 43 Namae hwy. Fukuoka, Japan 4933-204-2333$ 1997 5654 Kilroy Lastinghaus 33 Nokellich rd. Juneau, Alaska 44862$ 1962 3003 Sir Albert Eyington III 234 Rokenhill Pl. Glasgow, Scotland 84935-31 1896 Return to menu.	X	

DEBUG MODE TESTING

Test #	Description	Inputs	Expected Outputs	PASS	FAIL
1	Start program with debug arguments	./Proj1 debug	Debug warning "***DEBUG***" will display along with parameter information Menu will display as below (1) Add a new record in the database (2) Modify a record in the database using the accountno as the key (3) Print information about a record using the accountno as the key (4) Print all information in the database (5) Delete an existing record from the database using the accountno as a key (6) Quit the program Please enter the number of the menu item to run:	X	
2	Modify Record (empty list)	2	"List is empty" Return to menu	X	
3	Print Record (empty list)	3	"List is empty" Return to menu	X	
4	Print All Records (empty list)	4	"List is empty" Return to menu	X	
5	Add a new record to empty list (no-duplicate)	1 Record 1 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
6	Add new record to end of list (no-duplicate)	1 Record 3 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
7	Add new record to middle of list (no-duplicate)	1 Record 2 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
8	Print record at beginning of list	3 AcctNo of Record 1 of testRecords	Debug warning "***DEBUG***" will display along with parameter information 135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990	X	
9	Modify Record at beginning of list	2 135792468 2012 Modified Ave. New York, NY, 50213$	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is modified "1 record(s) modified successfully." Return to menu	X	
10	Print All Records	4	Debug warning "***DEBUG***" will display along with parameter information 135792468 Holly Day 135792468 2012 Modified Ave. New York, NY, 50213 1990 12345678 Barb E. Dahl 1415 Campus Rd. Honolulu, HI 96824 USA 1980 98765432 Anita Knapp 12 University Ave. Honolulu, HI 96824 1975 Return to menu	X	
11	Add a new record to beginning of list (no-duplicate)	1 Record 7 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
12	Delete record from end of list (no-duplicate)	5 AcctNo of Record 3 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "1 record(s) deleted successfully." Return to menu	X	
13	print non-existent record	3 AcctNo of Record 3 of testRecords	Debug warning "***DEBUG***" will display along with parameter information "Specified record doesn't exist." Return to menu	X	
14	Modify record at middle of list	2 135792468 1000 School St. Honolulu, HI 96823$	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is modified "1 record(s) modified successfully." Return to menu	X	
15	Print record at middle of list	3 AcctNo of Record 1 of testRecords	135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990 Return to menu	X	
16	Delete record from middle of list (no-duplicate)	5 AcctNo of Record 1 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "1 record(s) deleted successfully." Return to menu	X	
17	Delete record from beginning of list (no-duplicate)	5 AcctNo of Record 7 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "1 record(s) deleted successfully." Return to menu	X	
18	Modify non-existent record (no-duplicate)	2 4444 44 Namae St. Fukuoka, Japan 49332-313$	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is modified "Specified record doesn't exist." Return to menu	X	
19	Delete last record in list (no-duplicate)	5 AcctNo of Record 2 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "1 record(s) deleted successfully." Return to menu	X	
20a	Add duplicate record to empty list	1 Record 1 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	

20b	Add duplicate record to empty list	1 Record 1 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
20c	Add duplicate record to beginning of list	1 Record 1 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
21a	Add a duplicate year record to end of list	1 Record 10 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
21b	Add a duplicate year record to end of list	1 Record 10 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
22	Modify duplicate year record at end of list	2 4556 190 Russia St. Boston, MA. 68293 USA$	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is modified "2 record(s) modified successfully." Return to menu	X	
23	print duplicate year record at end of list	3 AcctNo of Record 10 of testRecords	Debug warning "***DEBUG***" will display along with parameter information 4556 James Bond 190 Russia St. Boston, MA. 68293 USA 1945 4556 James Bond 190 Russia St. Boston, MA. 68293 USA 1945 Return to menu	X	
24a	Add duplicate record to middle of list	1 Record 8 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
24b	Add duplicate record to middle of list	1 Record 8 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
25	Print all records (duplicates)	4	Debug warning "***DEBUG***" will display along with parameter information 135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990 135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990 135792468 Holly Day 1000 School St. Honolulu, HI 96823 1990 5654 Kilroy Lastinghaus 33 Nokellich rd. Juneau, Alaska 44862 1962 5654 Kilroy Lastinghaus 33 Nokellich rd. Juneau, Alaska 44862 1962 4556 James Bond 190 Russia St. Boston, MA. 68293 USA 1945 4556 James Bond 190 Russia St. Boston, MA. 68293 USA 1945 Return to menu	X	
26	Add duplicate record to end of list	1 Record 5 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
27	delete duplicate record from middle of list	5 AcctNo of Record 8 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "2 record(s) deleted successfully." Return to menu	X	
28	Delete non-existent record from list	5 AcctNo of Record 8 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "The entered account number doesn't exist or the list is empty." Return to menu	X	
29	Delete duplicate record from beginning of list	5 AcctNo of Record 1 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "3 record(s) deleted successfully." Return to menu	X	
30	delete duplicate record from end of list	5 AcctNo of Record 10 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "2 record(s) deleted successfully." Return to menu	X	
31	Add duplicate record to beginning of list	1 Record 5 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
32	delete remaining duplicate records to empty list	5 AcctNo of Record 5 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "2 record(s) deleted successfully." Return to menu	X	
33	delete from empty list	5 1000	Debug warning "***DEBUG***" will display along with parameter information when record is deleted "The entered account number doesn't exist or the list is empty." Return to menu	X	
34	print all from emptied list	4	"List is empty" Return to menu	X	
35	Quit program from menu	6	Debug warning "***DEBUG***" will display along with debug information for writefile "Quitting program..." Program ends and control returns to console	X	

36	Run program with incorrect command line arguments	./Proj1 fail	hw3b: Incorrect arguments Usage: hw3b hw3b [debug] Program exits and control returns to console	X	
37	Start program and enter record for writefile tests	1 Record 4 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
38	Enter record for writefile tests	1 Record 6 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
39	Enter record for writefile tests	1 Record 7 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
40	Print All Records	4	Debug warning "***DEBUG***" will display along with parameter information 1234 First M. Last 123 Address Ave Sacramento, CA 12345$ 2012 4444 Sir Namingway Jr. 43 Namae hwy. Fukuoka, Japan 4933-204-2333 1997 3003 Sir Albert Eyington III 234 Rokenhill Pl. Glasgow, Scotland 84935-31 1896 Return to menu.	X	
41	Quit program from menu to initiate writefile	6	Debug warning "***DEBUG***" will display along with debug information for writefile "Quitting program..." Program ends and control returns to console	X	
42	Start program with no arguments to run readfile	./Proj1 debug	Debug warning "***DEBUG***" will display along with parameter information Menu will display as below (1) Add a new record in the database (2) Modify a record in the database using the accountno as the key (3) Print information about a record using the accountno as the key (4) Print all information in the database (5) Delete an existing record from the database using the accountno as a key (6) Quit the program Please enter the number of the menu item to run:	X	
43	Print all records to test readfile	4	Debug warning "***DEBUG***" will display along with parameter information 1234 First M. Last 123 Address Ave Sacramento, CA 12345$ 2012 4444 Sir Namingway Jr. 43 Namae hwy. Fukuoka, Japan 4933-204-2333$ 1997 3003 Sir Albert Eyington III 234 Rokenhill Pl. Glasgow, Scotland 84935-31 1896 Return to menu.	X	
44	Add a new record to ensure functionality	1 Record 8 of testRecords	Debug warning "***DEBUG***" will display along with parameter information when entering address Debug warning "***DEBUG***" will display along with parameter information when record is added "Record added sucessfully" Return to menu	X	
45	Print All Records	4	Debug warning "***DEBUG***" will display along with parameter information 1234 First M. Last 123 Address Ave Sacramento, CA 12345$ 2012 4444 Sir Namingway Jr. 43 Namae hwy. Fukuoka, Japan 4933-204-2333$ 1997 5654 Kilroy Lastinghaus 33 Nokellich rd. Juneau, Alaska 44862$ 1962 3003 Sir Albert Eyington III 234 Rokenhill Pl. Glasgow, Scotland 84935-31 1896 Return to menu.	X	