Publication Management

TEST REPORT

Version <3.0>

22/04/2018

VERSION HISTORY

Version #	Implemented By	Revision Date	Brief Description
1.0	Qazi Sajid Azam, Rahul Jindal	03/04/2018	*Publication management for journal papers.*
2.0	K. Rajasekhar, N. Mourya Mithra	10/04/2018	*Cross testing*
3.0	Qazi Sajid Azam, Rahul Jindal	22/04/2018	*Final test report after enhancement*

Table of Contents

1.0 INTRODUCTION

Purpose: The purpose of making a test report is to help in finding defects which may have occurred during the development phase. This is indispensable if we want to deliver an error-free product and also provides a means to ensure that our software contains all the functionalities that were stated in the SRS document.

2.0 TEST PLAN

This test report contains the unit test plan and system test plan.

3.0 DETAILS OF UNIT TESTING

3.1 MAIN FUNCTION

3.1.1 **Test Items:**
main()

3.1.2 **Features To Be Tested:**
Program should start execution

3.1.3 **Item Pass/Fail Criteria:**
Test is passed if it successfully starts execution

3.1.4

Test No.	Input	Expected	Actual	Pass/Fail
3.1.1.1	none	running	running	PASS

All test cases verified.

3.2 LOGIN SCREEN

3.2.1 **Test Items:**
start()

3.2.2 **Features To Be Tested:**
It should print a welcome message, load the data and then ask for login until the program is exited. If login is successful, it shows options for admin otherwise asks user to retry login. If user chooses not to login, it shows the options for a guest user.

3.2.3 **Item Pass/Fail Criteria:**
Test is passed if it shows the welcome screen and login options, and then calls the appropriate functions for guest or admin UI.

3.2.4

Test No.	Input	Expected	Actual	Pass/Fail
3.2.1.1	'y', "admin1", "pass1"	Called adminOptions()	Called adminOptions()	PASS

3.2.1.2	'n'	Called userOptions()	Called userOptions()	PASS
3.2.1.3	'y', "wrongname", "pass"	"Login failed". retry	"Login failed". retry	PASS
3.2.1.4	'y', "admin", "wrongpass"	"Login failed". retry	"Login failed". retry	PASS

All test cases verified.

3.3   USER UI FUNCTION

3.3.1   **Test Items:**
userOptions()

3.3.2   **Features To Be Tested:**
Should display menu of options available to guest user and let them execute these options repeatedly until logout.

3.3.3   **Item Pass/Fail Criteria:**
Test is passed if menu is displayed and appropriate action is taken for each selection in the menu.

3.3.4

Test No.	Input	Expected	Actual	Pass/Fail
3.3.1.1	none	Menu shown	Menu shown	PASS
3.3.1.2	1	Called usearch()	Called usearch()	PASS
3.3.1.3	2	Called uStat()	Called ustat()	PASS
3.3.1.4	3	Called uNews()	Called uNews()	PASS
3.3.1.5	4	Return to login menu	Return to login menu	PASS
3.3.1.6	8	"Invalid response"	"Invalid response"	PASS
3.3.1.7	a	"Invalid response"	"Invalid response"	PASS

All test cases verified.

3.4 ADMIN UI FUNCTION

3.4.1 Test Items:
adminOptions()

3.4.2 Features To Be Tested:
Should display menu of options available to admin user if they are logged in and let them execute these options repeatedly until logout. If they are not logged in, return to login menu.

3.4.3 Item Pass/Fail Criteria:
Test is passed if menu is displayed and appropriate action is taken for each selection in the menu.

3.4.4

Test No.	Input	Expected	Actual	Pass/Fail
3.4.1.1	none	Menu shown	Menu shown	PASS
3.4.1.2	1	Called usearch()	Called usearch()	PASS
3.4.1.3	2	Called uStat()	Called ustat()	PASS
3.4.1.4	3	Called uNews()	Called uNews()	PASS
3.4.1.5	4	Called edit()	Called edit()	PASS
3.4.1.6	5	Called saveData()	Called saveData()	PASS
3.4.1.7	6	Called rollBack()	called rollBack()	PASS
3.4.1.8	7	Return to login	Return to login	PASS
3.4.1.9	8	"Invalid response"	"Invalid response"	PASS
3.4.1.10	local login=0	"Not logged in" Return to login	"Not logged in" Return to login	PASS

All test cases verified.

5

3.5 USER-LEVEL SEARCH FUNCTION

3.5.1 **Test Items:**
usearch()

3.5.2 **Features To Be Tested:**
Should show the filters menu by which the search can be performed. Then if the response is valid, it should take the keyword for search and pass it to the system search function.

3.5.3 **Item Pass/Fail Criteria:**
Test is passed if menu is displayed, filter type and keyword are input and the system search function is called.

3.5.4

Test No.	Input	Expected	Actual	Pass/Fail
3.5.1.1	none	Menu shown	Menu shown	PASS
3.5.1.2	1, string	Called searchdata (string, 1)	Called searchdata (string, 1)	PASS
3.5.1.3	2, string	Called searchdata (string, 2)	Called searchdata (string, 2)	PASS
3.5.1.4	3, string	Called searchdata (string, 3)	Called searchdata (string, 3)	PASS
3.5.1.5	4, string	Called searchdata (string, 4)	Called searchdata (string, 4)	PASS
3.5.1.6	5, string	Called searchdata (string, 5)	Called searchdata (string, 5)	PASS
3.5.1.7	6	Return to previous	Return to previous	PASS
3.5.1.8	8	"Invalid response" return to options menu	"Invalid response" return to options menu	PASS

All test cases verified.

3.6 SYSTEM-LEVEL SEARCH FUNCTION

3.6.1 **Test Items:**
searchdata(string key, int type)

3.6.2 **Features To Be Tested:**
Should print the output table heading and call the correct specific search function according to the type variable.

3.6.3 **Item Pass/Fail Criteria:**
Test is passed if the correct specific search function is called.

3.6.4

Test No.	Input	Expected	Actual	Pass/Fail
3.6.1.2	string, 1	Called searchname (string)	Called searchname (string)	PASS
3.6.1.3	string, 2	Called searchauth (string)	Called searchname (string)	PASS
3.6.1.4	string, 3	Called searchjournal (string)	Called searchjournal (string)	PASS
3.6.1.5	string, 4	Called searchdoi (string)	Called searchdoi (string)	PASS
3.6.1.5	string, 5	Called searchyear (string)	Called searchyear (string)	PASS

All test cases verified.

3.7 ADMIN-LEVEL EDIT FUNCTION

3.7.1 **Test Items:**
edit()

3.7.2 **Features To Be Tested:**
Should display a menu of the types of edit an admin can make. If the choice is valid, then take the corresponding input and pass it to the system-level specific edit functions.

3.7.3 **Item Pass/Fail Criteria:**
Test is passed if menu is shown and the input is taken and passed to the specific edit functions.

3.7.4

Test No.	Input	Expected	Actual	Pass/Fail
3.7.1.1	none	Menu shown	Menu shown	PASS
3.7.1.2	1, string	Called addPaper(string) "Records updated"	Called addPaper(string) "Records updated"	PASS

3.7.1.3	2, int, y	Called deletePaper(int) "Records updated"	Called deletePaper(x) "Records updated"	PASS
3.7.1.4	3, int, y, string	Called changePaper (string,int) "Records updated"	Called changePaper (string,x) "Records updated"	PASS
3.7.1.5	2, wrong	"Index not found"	"Index not found"	PASS
3.7.1.6	3, wrong	"Index not found"	"Index not found"	PASS
3.7.1.7	4	Return to options menu	Return to options menu	PASS
3.7.1.7	5	"Invalid response" Return to options menu	"Invalid response" Return to options menu	PASS

All test cases verified.

3.8   SYSTEM-LEVEL SAVE FUNCTION

3.8.1   **Test Items:**
saveData()

3.8.2   **Features To Be Tested:**
Write the data in running memory to the stored file.

3.8.3   **Item Pass/Fail Criteria:**
Test is passed if the database gets saved.

3.8.4

Test No.	Input	Expected	Actual	Pass/Fail
3.8.1.1	none	"Database saved"	"Database saved"	PASS

All test cases verified.

3.9 USER-LEVEL STATISTICS GENERATOR FUNCTION

3.9.1 Test Items:
uStat()

3.9.2 Features To Be Tested:
Should display menu of grouping types for statistics, then pass the grouping type to system-level stats generator function.

3.9.3 Item Pass/Fail Criteria:
Test is passed if the system-level stats generator function is called.

3.9.4

Test No.	Input	Expected	Actual	Pass/Fail
3.9.1.1	int	Called getStat(int)	Called getStat(int)	PASS
3.9.1.2	not int	Called getStat(0)	Called getStat(int)	PASS

All test cases verified.

3.10 SYSTEM-LEVEL DATABASE LOADER FUNCTION

3.10.1 Test Items:
loadData()

3.10.2 Features To Be Tested:
Should display message confirming data load process.

3.10.3 Item Pass/Fail Criteria:
Test is passed if the data loading message is displayed.

3.10.4

Test No.	Input	Expected	Actual	Pass/Fail
3.10.1.1	none	"Loading data…"	"Loading data…"	PASS

All test cases verified.

3.11 ADMIN LOGIN FUNCTION

3.11.1 Test Items:
adminLogin (string,string)

3.11.2 Features To Be Tested:
Should try to login with all elements of admin list using username and password. If any login is successful, return index of admin that is logged in. Otherwise print message that login failed.

3.11.3 Item Pass/Fail Criteria:
Test is passed if the login status is displayed and index returned.

3.11.4

Test No.	Input	Expected	Actual	Pass/Fail
3.11.1.1	username, password	"Logged in as: username"	"Logged in as: username"	PASS
3.11.1.2	wrong, password	"Login Failed"	"Login Failed"	PASS
3.11.1.3	username, wrong	"Login Failed"	"Login Failed"	PASS
3.11.1.4	wrong, wrong	"Login Failed"	"Login Failed"	PASS

All test cases verified.

3.12 ADMIN LOGOUT FUNCTION

3.12.1 Test Items:
logout ()

3.12.2 Features To Be Tested:
Database is saved or not saved based on user input and logout is done.

3.12.3 Item Pass/Fail Criteria:
Test is passed if the login is set to false and database is saved or paperlist is reloaded depending on user input.

3.12.4

Test No.	Input	Expected	Actual	Pass/Fail
3.12.1.1	'y'	Called saveData() login=false	Called saveData() login=false	PASS
3.12.1.2	'n'	Called loadData() login=false	Called loadData() login=false	PASS

All test cases verified.

3.13 USER-LEVEL NEWS FUNCTION

3.13.1 Test Items:
uNews()

3.13.2 Features To Be Tested:
Should call the system-level news function.

3.13.3 Item Pass/Fail Criteria:
Test is passed if printNews() function is called.

3.13.4

Test No.	Input	Expected	Actual	Pass/Fail
3.14.1.1	none	called printNews()	called printNews()	PASS

All test cases verified.

3.14 SYSTEM-LEVEL STATISTICS GENERATOR FUNCTION

3.14.1 Test Items:
getStat(int)

3.14.2 Features To Be Tested:
Display statistics based on value passed into it.

3.14.3 Item Pass/Fail Criteria:
Test is passed if correct type of stats are displayed.

3.14.4

Test No.	Input	Expected	Actual	Pass/Fail
3.14.1.1	1	Display author stats	Display author stats	PASS
3.14.1.2	2	Display year stats	Display year stats	PASS
3.14.1.3	0	"Invalid Response"	"Invalid Response"	PASS

All test cases verified.

4.0 DETAILS OF SYSTEM TESTING

Test	Test step	Expected	Actual	Pass/Fail
1	Login as Guest->Search	Search menu shown	Search menu shown	PASS
2	Login as Guest->Stats	Stats menu shown	Stats menu shown	PASS
3	Login as Guest->News	News shown	News shown	PASS
4	Login as Admin->Edit	Edit menu shown	Edit menu shown	PASS
5	Login as Admin->Logout	Returned to login screen	Returned to login screen	PASS
6	Login as Admin->Search	Search menu shown	Search menu shown	PASS
7	Login as Admin->Stats	Stats menu shown	Stats menu shown	PASS
8	Login as Admin->News	News shown	News shown	PASS
9	Login as Admin->Save Data	Database saved	Database saved	PASS
10	Load Data	Database loaded	Database loade	PASS

All test cases verified.

News is shown for Login as Admin->News shows incorrect details like some times it shows double details which implies already deleted data is again deleted which not possible.

News is shown for Login as Guest->News shows incorrect details like some times it shows double details which implies already deleted data is again deleted which not possible.

Above two test results are essentially the same as News function is same for both types of users.

Moreover, we have tested these results before giving the project for cross testing and already verified that this function works properly. The above error may have occurred as a result of carelessness on the part of the cross testing team.

5.0 UNRESOLVED TEST INSTANCES

Test Case ID	Summary of Defect	Why not resolved
<none>		