91896 - Testing Document

**Unit Testing**

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| User\_menu | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 17/6 | The Menu runs properly, that all the buttons appear with the welcome message | Valid | Pressing the start button (nothing) | That the menu should run properly, with a welcome message | No buttons appeared. | I wrote the wrong list in the code, so it looped through an empty list instead of looping through the possible options the user can choose, so no options were added to the menu. Changing the list allowed it to loop properly and display the buttons on the menu |
| 17/6 | The Menu runs properly, that all the buttons appear with the welcome message | Valid | Pressing the start button (nothing) | That the menu should run properly, with a welcome message | The buttons appear and the menu displays properly | N/A |
| 17/6 | That the Exit button works properly, and that the program will exit even if the user presses the ‘x’ button or the exit button | Valid | Pressing the Exit button | The program should close without re-appearing | The program exited without re-opening, and the code completely stopped. | N/A |
| Pressing the ‘X’ button |

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| Integer\_validation | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 18/6 | Seeing if my Integer Validation Function works, seeing if it returns the correct values. It should check if the value is an integer and if it between a certain range. | Valid | I input the number 2 | ‘True’ – Saying that the input value works (Is an integer) with the function | ‘True’ | N/A |
| Valid | I input the number 1 | ‘True’ – Saying that the input value works (Is an integer) with the function | It returned “Please input a number between 1 and 3!” | Added a +1 and -1 when comparing because the less than or equal to does not work. |
| Invalid | I type in ‘hi’ | Should return ’Please input a number!’ | It caught the error and gave the response “Please input a number!” | N/A |
| Boundary | I typed in “4”, when the expected range is between 1 and 3 | The program should return “Please input a number between 1 and 3!” | It returned “Please input a number between 1 and 3!” | N/A |
| I typed in “0”, when the expected range is between 1 and 3 | The program should return “Please input a number between 1 and 3!” | It returned “Please input a number between 1 and 3!” | N/A |
| 18/6 | Seeing if my Integer Validation Function works, with the correct range (after the fix). | Valid | I input the number 1 | ‘True’ – Saying that the input value works (Is an integer) with the function | ‘True’ – Saying that the input value works (Is an integer) with the function | N/A |
| I input the number 2 |
| I input the number 3 |

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| Adding Function: Create\_new\_task, input\_multiple\_values, check\_multiple\_input\_values, generate\_task\_id | | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed | |
| 23/6 | Seeing if the program works if:  - I leave some values blank  - I leave all of them blank  - I fill it all in correctly.  Without breaking or making the user stuck on one screen. Or allowing the user to input empty values into the system | Invalid |  | The program should return an error, Saying “You need to fill in all values!” and returning to the input page again | Window came up with the text “Error! You need to fill in all values!” | N/A | |
| Invalid |  | The program should return an error, saying “You need to fill in all values!” then returning to the input page again | Window came up with the text “Error! You need to fill in all values!” | N/A | |
| Valid |  | The program should create the task and output it in the terminal (proper display hasn’t been created yet), with a new generated task. (See row below) | Output all dictionaries, With the updated one. The new task\_ID was invalid and overwrote an old task. | Adding a +1 to the generate\_task\_id because the list indexes start from 0 | |
| 23/6 | Seeing if the generate\_taks\_id function works correctly, generating an ID which is one more up from the last one eg. T1, T2. | Valid | ‘Valid’ Value from the last test: | Should output the correct task ID, along with all the dictionaries due to the output not being properly created yet. The ID should be one more from the last generated one (Should be ‘T6’) | Output all dictionaries, With the updated one. The new task\_ID was invalid and overwrote an old task. | Adding a +1 to the generate\_task\_id because the list indexes start from 0 | |
| 24/6 | Seeing if the generate\_taks\_id function works correctly, generating an ID which is one more up from the last one eg. T1, T2. | Valid | ‘Excpected’ Value from the last test: | Should output the correct task ID, along with all the dictionaries due to the output not being properly created yet. The ID should be one more from the last generated one (Should be ‘T6’) | Created a new task dictionary with ID T6, didn’t overwrite another dictionary. | N/A | |
| 24/6 | Seeing if my Integer Validation Function works, seeing if it returns the correct values. It should check if the value is an integer and if it between a certain range. | Valid | I input the number 1 | The program should allow this and continue to add it as a new task. No error pop up, just saying ‘new task has been added.’ | The program added the task and showed me all tasks showing me it has been successfully added. | N/A | |
| Invalid | I input the word ‘hello’ | The program should give an error, saying “Please input a number” | The program gave an error and allowed me to re-enter the value again. | N/A | |
| Boundary | I put in the number 0 | The program should give an error, saying “Please input a number between 1 and 3” | The program gave an error and allowed me to re-enter the value again. | | N/A |
| Boundary | I put in the number 1 | The program should say task successfully added! Then output the task | Program accepted the value and allowed me to continue | | N/A |
| Boundary | I put in the number 2 | The program should say task successfully added! Then output the task | Program accepted the value and allowed me to continue | | N/A |
| Boundary | I put in the number 3 | The program should say task successfully added! Then output the task | Program accepted the value and allowed me to continue | | N/A |
| Boundary | I put in the number 4 | The program should give an error, saying “Please input a number between 1 and 3” | The program gave an error and allowed me to re-enter the value again. | | N/A |
| 18/7 | Seeing if my Integer Validation Function works, seeing if it returns the correct values. It should check if the value is an integer and if it between a certain range. | Invalid | Put in nothing | Should give an error telling the user to fill in all the values | Program gave an error and told me to fill in al values | N/A | |
| 28/7-30/7 | Re-doing all the testing due to updating the add function.  Seeing if the Program works  - I leave some values blank  - I leave all of them blank  - I fill it all in correctly.  Without breaking or making the user stuck on one screen. Or allowing the user to input empty values into the system  + Boundary Testing again | Valid | I fill in everything normally, then select the assignee as normal without cancelling or leaving anything blank  Title: “hi”, description: “hi”, priority 1, assignee: “JSM” | Program should output the task and show me with the new task id if T +1 | Program output the task as normal and added it to the dictionary | N/A | |
| Invalid | I leave everything blank while filling everything else in | Should give an error saying you need to fill in all values and return me to the home screen | Gave an error saying I need to fill in all values! | N/A | |
| I leave Title Blank while filling everything else in | Should give an error saying you need to fill in all values and return me to the home screen | Gave an error saying I need to fill in all values! | N/A | |
| I leave Description Blank while filling everything else in | Should give an error saying you need to fill in all values and return me to the home screen | Gave an error saying I need to fill in all values! | N/A | |
| I leave Priority Blank while filling everything else in | Should give an error saying you need to fill in all values and return me to the home screen | Gave an error saying I need to fill in all values! | N/A | |
| I don’t choose an assignee (press cancel or the x button) | Should return me to the home screen while giving an error saying the creation was cancelled. | Returned me to the homescreen without an error | Added a message box inbetween saying that the edit was cancelled | |
| Boundary | I input text ‘hihi’ | Should give me an error message saying I can only input numbers. | Gave an error saying I can only put in a number | N/A | |
| I input Number 0 | Should give an error message saying I can only input numbers between 1 and 3 | It said I can only input numbers between 1 and 3 | N/A | |
| I input the number 1 | Allow me to move on to assign the task to a user and create the task successfully. | It allowed me to carry on with the task creation and created the task successfully. | N/A | |
| I input the number 2 | Allow me to move on to assign the task to a user and create the task successfully. | It allowed me to carry on with the task creation and created the task successfully. | N/A | |
| I input the number 3 | Allow me to move on to assign the task to a user and create the task successfully. | It allowed me to carry on with the task creation and created the task successfully. | N/A | |
| I input the number 4 | Should give an error message saying I can only input numbers between 1 and 3 | It said I can only input numbers between 1 and 3 | N/A | |
| Invalid (Retest) | I don’t choose an assignee (press cancel or the x button) | Should give a message saying “You cancelled the create task function” and return me to the home screen | Returned me to the home screen with an error, letting the user know that they cancelled the creation/selection | N/A | |
| 30/7 | What happens if I press cancel during the creation process? | Valid | I have all the values typed in on the first menu (title, description, priority) but then press cancel | It should return me to the homescreen | It returned me to the homescreen without creating the task | N/A | |
| I have no values typed in on the first menu (title, description, priority) and then press cancel | It should return me to the homescreen | It returned me to the homescreen without creating the task | N/A | |
| Valid | I press cancel while in the assign task menu | It should give an error saying I cancelled the selection and return me to the home screen | It gave an error saying I cancelled the selection and returned me to the home screen | N/A | |

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| Search Function: search\_selection, search\_tasks, search\_members, search\_members\_dictionary, search\_members\_input | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 26/6 | The Cancel/X button, if it returns me to the homepage | Valid | Pressing the Cancel/X button | Returns me to the homepage | Returned me to the homepage | N/A |

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| Search for a Task + Task output | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 18/7 | What happens if I press the cancel or ‘x’ button while selecting a task | Valid | Cancel button and ‘x’ button | It returns to the homepage | It returns to the homepage | N/A |
| 30/7 | What happens if I press cancel while looking at the task output. | Valid | ok / x button | Returns me to the home page | Returned me to the homepage | N/A |

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| --- | --- | --- | --- | --- | --- | --- |
| Search for a User + User output | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 18/7 | What happens if I don’t fill in a value or put in a member who does not exist or a member who does exist | Valid | “JSM” or “John Smith” | Program should output the user ‘John Smith’ | Program output John smith’s information | N/A |
| Invalid | “Pedwfosad f” | Program should say user does not exist and return to the homepage | Program said that member did not exist and returned me to the homepage | N/A |
| Invalid | Nothing | Program should say nothing was input and return to the homepage | Program said nothing was input and returned me to the homepage | N/A |
| 18/7 | What happens if I put in a lowercase name or member id when inputting it$ | Valid | “jsm” | The program should recognize the id and output John Smith’s profile | Program crashed | Added ‘.lower():’  To the comparative to allow the program to recognize the user id, even if it is in lowercase, as well as an .upper(), to pass the user id to the output function |
| “john smith” | The program should recognize the name and output John Smith’s Profile | Program crashed | Added ‘.lower():’  To the comparative to allow the program to recognize the user name, even if it is in lowercase |
| 21/7 | What happens if I put in a lowercase name or member id when inputting it  (re-test) | Valid | jsm | The program should recognize the id and output John Smith’s profile | The program recognized the id and output John Smith’s profile | N/A |
| john smith | The program should recognize the name and output John Smith’s Profile | The program recognized the name and output John Smith’s Profile | N/A |
| 30/7 | What happens if I cancel the search while having a string half typed out in it | Valid | “John Smith” but then press cancel | The program should return to the main menu | The program returned to the main menu | N/A |
| Invalid | “sadas” but then press cancel | The program should return to the main menu | The program returned to the main menu | N/A |

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| String Validation | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 26/6 | Seeing if the string validation works, if it’s empty or if there is an empty space, or if the user filled in all options. | Valid |  | Task Successfully added. Then return to homepage. | Task Successfully added. Then return to homepage. | N/A |
| Invalid |  | Gives an error. Allows me to re-enter the values again. | Gave an error and allowed me to re-enter all the values | N/A |
| Invalid |  | Gives an error. Allows me to re-enter the values again. | Gave an error and allowed me to re-enter all the values | N/A |
| 26/6 | Seeing what happens when for a single input value. When I input something or not. | Valid | “JSM” | Carries on and displays the user info, when it is created | It returned me to the homepage. | Added and else: return true  Because the function only knew what to do when there was nothing input. |
| Invalid | Keep the field blank | Returns the user to the homepage | Returns the user to the homepage | N/A |
| 26/6 | Seeing what happens when for a single input value. When I input something (Retest) | Valid | “JSM” | Carries on and displays the user info, when it is created | Popped up with the user info | N/A |
| 30/7 | If I leave a string blank but enter it in | Invalid | nothing | Program should bring up an error and return me to the homepage or previous menu | Program gave an error and returned me to the homepage | N/A |
| 30/7 | If I enter in a value which is acceptable in a single input | Valid | “Hello” | Program should allow the text and carry on | Program allowed the value and carried on | N/A |

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| Output all Tasks Function | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 18/7 | What happens if I press the x button instead of ok | Valid | The x button | The window should close and return to the home page | The window closed and returned to the homepage | N/A |

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| Assign/Un-assign Task | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 21/7 | If the Assign member to a task function works (without anyone assigned to it.) | Valid | Choicebox selection “BDI” | Program should add the task to the user task list and set the assignee of the task to “BDI” | Program added the task to the user task list and set the assignee of the task to “BDI” | N/A |
| 21/7 | If the assign member to a task function works (even if someone is already assigned to the task) | Valid | Choicebox “JSM” | Program should add the task to the user task list and set the assignee of the task to “JSM”, replacing “BDI”, and removing the task from BDI’s task list. | Program added the task to the user task list and set the assignee of the task to “JSM”, and removed Task 1 from BDI’s task list. | N/A |
| 21/7 | If the Un-assign member from a task works. (if task has someone assigned to it.) | Valid | Choicebox “None” on task T1 | It should remove the task from the user’s task list and set the assignee of the task to “None” | The program removed the task from the user’s task list and set the assignee of the task to “None” with a successful message box | N/A |
| 30/7 | If I assign a task which is already complete to a user. | Invalid |  |  |  |  |
| 21/7 | If the Un-assign member form a task works (if task already has nobody assigned to it) | Valid | Choicebox “None” on task T3 | It should assignee of the task to “None” | It set the assignee of the task to “None” | N/A |
| 30/7 | If I assign a user to a task which is already set to completed | Invalid | Choicebox “JSM” on a task which already has task status as complete | The program should not allow that and return the user to the homepage, saying that they need to edit the task status first. | It allowed the task to be assigned. | Added a conditional to check if the task status is already set to complete, and gave an error message if the task was already set to complete. |
| 30/7 | If I assign a user to a task which is already set to completed (retest) | Invalid | Choicebox “JSM” on a task which already has task status as complete | The program should not allow that and return the user to the homepage, saying that they need to edit the task status first. | The program did not allow that and returned the user to the homepage, saying that they need to edit the task status first. | N/A |

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| Edit a Task Function (without assign task as it was done above) | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 22/7 | If I press cancel while selecting to edit a task | Valid | “Cancel” when the list of tasks are shown | Program should return to the home menu | It allowed me to edit “None”, causing it to eventually crash | Added an:  Else: return false  To the functions if cancelled, and if false it returned it brings the user to the home menu |
| 22/7 | If I press cancel while selecting to edit a task (retest) | Valid | “Cancel” when the list of tasks are shown | Program should return to the home menu | Program returned to the home menu | N/A |
| 22/7 | If I press cancel while in the middle of editing a task – inputting the change | Valid | “Cancel” / x button when tyipng in a new edit. | Program should say “No value input. Returning.” And return to the homepage | Program said no value input, returning to homepage. And returned to the homepage | N/A |
| 23/7 | The priority edit - / Integer validation | Valid | 1 | Program should accept value and successfully edit it, showing the user the new value and output | Priority was updated successfully, showed the user the new output | N/A |
| Valid | 2 | Program should accept value and successfully edit it, showing the user the new value and output | Priority was updated successfully, showed the user the new output |
| Valid | 3 | Program should accept value and successfully edit it, showing the user the new value and output | Priority was updated successfully, showed the user the new output |
| Invalid | Hello | Program should bring up an error, saying you must input a number, allowing the user to enter the value again | It said I had to enter a number and returned me to the homepage |
| Boundary | 0 | Program should bring up an error, saying you must enter a value between 1 and 3, and allow the suer to re enter the value again | It said I had to enter a number between 1 and 3 and returned me to the homepage |
| Boundary | 4 | Program should bring up an error, saying you must enter a value between 1 and 3, and allow the suer to re enter the value again | It said I had to enter a number between 1 and 3 and returned me to the homepage |
| 30/7 | Testing the edit title function if it works | Valid | Changing title to “Hello” | Program should accept the new value and update it, then output the task | Program gave a window saying that the title was updated successfully, then output the task showing the new title | N/A |
| Invalid | Leaving the enter box blank | Program should recognize the lack of something being entered and say ‘edit cancelled’ and return to the homepage. | Program recognized that nothing was entered and said ‘Edit cancelled’ and then returned to the homepage. | N/A |
| 30/7 | Testing the edit description function to see if it works | Valid | Changing description to ‘hi’ | Program should accept the new value and change the description then output the task | Program updated the description, and output the edited task showing the new description | N/A |
| Invalid | Leaving the enter box blank | Program should give a box saying ‘no values input. Edit cancelled’ and return to the home page | Program recognized that nothing was entered and said ‘Edit cancelled’ and then returned to the homepage. | N/A |
| 30/7 | Testing if editing the status of a program works. | Valid | Changing the status to ‘In Progress’ | Program should update status then output the task. | Program updated the status and output the task | N/A |
| Invalid | Pressing the x button | Program should give an error box saying that the edit was cancelled and not change anything about the task | Program showed an error box then said the edit was cancelled then returned to the homepage. | N/A |
| 30/7 | Returning to the edit status function after editing the status of a task | Valid | Pressing ‘In Progress’ then returning to the task | The menu should appear the same | Multiple ‘Cancel’, increasing by one every time the status was updated. In the progress report it showed ‘cancel’ as a value.  This was because “cancel” was appended to a list to show the user, but wasn’t removed every time the user exited and no longer needed the list. | Added an “options.remove(cancel)” to the end of the function when returning the user input |
| 30/7 | Testing if setting the status to ‘complete’ removes the task from the team members task list. | Valid | Pressing ‘Complete’ in task 1. | Program should remove JSM as the assignee, and go into JSM’s task list and remove itself. | Nothing changed except for the task’s status. | Added the unassign task function to run when the task status is set to complete |
| 30/7 | Testing if setting the status to ‘complete’ removes the task from the team members task list. (retest) | Valid | Pressing ‘Complete’ in task 1. | Program should remove JSM as the assignee, and go into JSM’s task list and remove itself. | Program removed JSM as an assignee, set it to none, and the task was removed from JSM’s task list. | N/A |
| 30/7 | Returning to the edit status function after editing the status of a task (retest) | Valid | Pressing ‘In Progress’ then returning to the task | The menu should appear the same | Menu appeared the same | N/A |
| 30/7 | If the Assign member to a task function works (without anyone assigned to it.) | Valid | Choicebox selection “BDI” | Program should add the task to the user task list and set the assignee of the task to “BDI” | Program added the task to the user task list and set the assignee of the task to “BDI” | N/A |
| 30/7 | If the assign member to a task function works (even if someone is already assigned to the task) | Valid | Choicebox “JSM” | Program should add the task to the user task list and set the assignee of the task to “JSM”, replacing “BDI”, and removing the task from BDI’s task list. | Program added the task to the user task list and set the assignee of the task to “JSM”, and removed Task 1 from BDI’s task list. | N/A |
| 30/7 | If the Un-assign member from a task works. (if task has someone assigned to it.) | Valid | Choicebox “None” on task T1 | It should remove the task from the user’s task list and set the assignee of the task to “None” | The program removed the task from the user’s task list and set the assignee of the task to “None” with a successful message box | N/A |
| 30/7 | If the Un-assign member form a task works (if task already has nobody assigned to it) | Valid | Choicebox “None” on task T3 | It should assignee of the task to “None” | It set the assignee of the task to “None” | N/A |

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| Generate report function | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 30/7 | Seeing if i update the status of a function it would show in the list as updated | Valid | Set status of task 1 to “Complete” | It should show  In progress: 1  Not started: 1  Blocked: 2  Complete: 1 | It showed  In progress: 1  Not started: 1  Blocked: 2  Complete: 1 | N/A |
| Invalid | Set status of task 1 to “Complete” even if its status is already “complete” | It should show  In progress: 1  Not started: 1  Blocked: 2  Complete: 1 | It showed  In progress: 1  Not started: 1  Blocked: 2  Complete: 1 | N/A |

**System Testing**

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| --- | --- | --- | --- | --- | --- | --- |
| Whole Program | | | | | | |
| Date | What is being tested | Test Type | Test Value | Expected Result | Actual Result | How it was fixed |
| 30/7 | The add function, seeing if it searchable and viewable on the assigned members task list. | Valid | Title: “Test”  Description: “Hello”  Priority: 1  Assignee: “JSM” | Task should be created then output, and it should appear on the assignee’s task list. | Task was created, then output, and it appeared on the assignee’s task list. | N/A |
| 30/7 | The edit function, and all of its features, to see if it actually updates the task | Valid | Editing the title of T1 to “Task 1” | Program should change the title, and output it. | Program changed the title, and output it. | N/A |
| Editing the description of T1 to “Description of task 1” | Program should change the description, and output it. | Program changed the title, and output it. | N/A |
| Editing the priority of task 1 to 3 | Program should change the priority, and output it. | Program changed the title, and output it. | N/A |
| Editing the status of task 1 to blocked | Program should change the status, and output it. | Program changed the title, and output it. | N/A |
| Editing the assignee of Task 1 to JSM | Program should change the assignee, and output it. | Program changed the title, and output it. | N/A |
| 30/7 | The search for a team member function | Valid | I input “John Smith” into the search bar and press enter | It should output john smith’s information | Program output john smith’s information. | N/A |
| I input “jsm” into the search bar and press enter | It should output john smith’s information | Program output john smith’s information. | N/A |
| Invalid | I input nothing | Program should give an error saying nothing was input and return to the home screen | Program gave an error saying nothing was input and returned me to the home screen | N/A |
| I input a user that doesn’t exist: “kesf” | Program should give an error saying user does not exist and return me to the home screen | Program gave an error saying user does not exist and returned me to the home screen |
| 30/7 | The search task function | Invalid | I press the ‘x’ button to close the menu while selecting a task | It should return me to the home screen | Program returned me to the home screen | N/A |
| Valid | I select task T1. | It should output the task showing me the information about it | It output the task and showed me information about the task. | N/A |
| 30/7 | Generate Report | Valid | I press the x button while in the generate report menu. | It should return me to the home menu | It returned me to the home menu | N/A |
| 30/7 | Show all Tasks | Valid | I press the x button while in the show all tasks menu. | It should return me to the home menu | It returned me to the home menu | N/A |