­­­G51FSE Assessed Lab 4

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| **The Assemblers with Flip-Flops** |  | 09/03/2018 |

# 3. Test Plans

This section of the software specification document highlights the details of the system through the use of Unified Modelling Language and prototypes.

We have added some additional columns to the bug table. These are notes and a description for the changes are given in this paragrah.We have decided to have additional columns in the test table so we can provide more detail about the tests carried out. This will increase the traceability of the tests and make the changes easier to see. Firstly, we added **a Test ID** so that we can have a unique id for each test carried out. This will make it easier to refer back to the tests later on in the document. In addition to this, we added a column for prerequisite which will store detail about what other functions need to be performed before this test is carried out. Next, we included a column for the **actual output**. This is necessary so that we can compare if the expected output matches the actual output. If it doesn’t, a reason must be provided as to why and most likely there is an error/flow in the program. In addition to this, we added a column called ‘**test created by’**. This will hold the name of the person who created the tests and carried it out. This will increase accountability. Next, we added a column called ‘**pass or fail’**. This will make it easier to see the number of tests that has passed without the person having to read the details of each individual test. We then created a column which will store the **date** that the test has been carried out on. This will make it easier to see which version of a test is the latest if a test had been carried out multiple times. Finally, we added a column for **notes** which can be used to store additional details about the tests that does not fall into any other category. For example, if a test has failed, the notes could include a description as to why the test has failed.

Project Class

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| Test ID | Function Name | | Test Aim | | | Pre-Requisites | | Inputs | | Expected Output(s) | | Actual Output | Test Created By | Source: Spec or code inspection | | Pass / Fail | Date (Completed by) | | Notes | |
| 201 | Default Constructor | | Testing to see if it prepares the project with the initial variables | | | None | | None | | Should increment project counter, get default title, set project phase to the first stage and prepare private variables | |  | Justin Ng | Specification Document – Class Document | |  |  | |  | |
| 202 | Main Constructor | | Tests to see if it prepares the project with the initial variables and the defined project title | | | Default Constructor | | Title parameter | | Should initialise the project as in the default constructor but should set the title as the parameter passed | |  | Christian Stubbs | Specification Document – Class Document | |  |  | |  | |
| 203 | Get Project ID | | Checks if the Project ID is returned | | | Project ID | | None | | Should return the Project ID as an int | |  | Justin Ng | Specification Document – Class Document | |  |  | |  | |
| 204 | Get Project Title | | See if the function checks if the title is a valid length (Over 10 chars) and then sets it to the class variable | | | Project Title | | None | | Should return the Project Title as a string | |  | Christian Stubbs | Specification Document – Class Document | |  |  | |  | |
| 205 | Set Project Title | | Tests to take a valid project title as a parameter | | | None | | Project Title | | Should set the project title parameter and set it to the class variable if valid | |  | Justin Ng | Specification Document – Class Document | |  |  | |  | |
| 206 | Check Contact Function | | Tests to see if contact is in the contact array list | | | Email Address | | None | | Should return true if email address is in list and false if it is not | |  | Christian Stubbs | Specification Document – Class Document | |  |  | |  |
| 207 | Add Contact function | | Checks if the email address is added to the Project Contacts ArrayList via a given parameter | | | Project Contacts ArrayList | | Valid Email Address | | Adds valid email address to the Project Contacts ArrayList | |  | Justin Ng | Specification Document – Class Document | |  |  | |  |
| 208 | | Add Email Function | Checks if the ArrayList of CompanyEmails is fetched from the **current** phase, and then adds the email. The function should check the validity of the email and should display an error. Testing will also be included to add new recipients to contacts. | ArrayListof CompanyEmails from Project Emails array | CompanyEmail Object | | Adds email address to the CompanyEmails ArrayListif the email is valid, and throws an error if it is not valid |  | Christian Stubbs | | Specification Document – Class Document |  |  | |  | | |
| 209 | | Get Emails for current phase | Test to see if this function returns the emails in the correct phase of the project (current) | None | None | |  |  | Justin Ng | | Specification Document – Class Document |  |  | |  | | |
| 210 | | Get emails for specific phase | Test to see if this function returns the emails in the correct phase of the project (with a parameter specifying the desired phase) | Int – phase ID |  | |  |  | Christian Stubbs | | Specification Document – Class Document |  |  | |  | | |
| 211 | | Next Phase | This will check if the function moves the project to the next phase. Tests if the correct value is returned | Current Phase | None | |  |  | Justin Ng | | Specification Document – Class Document |  |  | | Will there be a "change phase" function to allow the phase to be changed to a desired stage? 09/03 | | |
| 212 | | Get Phase Name Function | Will see if the correct name of function is returned |  | Phase ID | |  |  | Christian Stubbs | | Specification Document – Class Document |  |  | |  | | |
| 213 | | Get Phase ID | Checks if the correct phase ID is returned |  | None | |  |  | Justin Ng | | Specification Document – Class Document |  |  | |  | | |
| 214 | | Get Project Contacts | The test will see if the string array of contacts for the given project is returned |  | Project ID | |  |  | Christian Stubbs | | Specification Document – Class Document |  |  | |  | | |
| 215 | | toString() Override | Checks if the function creates the string of the template "[Project title] [[Project Phase]] " |  |  | |  |  | Justin Ng | | Specification Document – Class Document |  |  | |  | | |

Change Log

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Change ID | GIT Commit ID | Bug ID | Description of Change | Files Changed | Date Received | Date Changed | Initiator By (Who Changed) | Change Checked By | Notes |
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Bug Fix List

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| Problem ID | Problem Description | Line of code | Test ID (if created) | Change ID | Proposed Fix | Priority  High, Med, Low | Date Problem identified | Fixed? (Yes/No) | Date Problem fixed | Who identified/fixed the test? | Does the bugged code relate to other functions? | Notes |
| 1 | Limit of 7 emails in the new ArrayList object. This seems like a small amount for a project that will likely have a lot of back and forth communication. | CompanyProject, 8 |  |  | Increase the value to something more feasible | Med | 09/03 |  |  | Christian(Identified) |  |  |
| 2 | No error thrown if email invalid in Company Project Class | CompanyProject, 58 |  |  | Return an error if email is invalid | Low | 09/03 |  |  | Justin (Identified) |  | Print error message necessary? |
| 4 | No validation on validity of project title - should be minimum of 10 chars | CompanyEmailsystem, 110 |  |  | Return an error if the title is not valid | Med | 09/03 |  |  | Christian |  |  |
| 7 |  |  |  |  |  |  |  |  |  |  |  |  |