# **Software Engineering Group Project Testing Specification**

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# **CONTENTS**

CONTENTS	2
1. INTRODUCTION	3
2. PURPOSE OF THIS DOCUMENT	
2.2 Objectives	
3. BODY OF DOCUMENT	
REFERENCES	
DOCUMENT HISTORY	

## 1. INTRODUCTION

### 1.1 Purpose of this Document

This document contains a testing specification for this project. The software engineering team will use this document to ensure the working system is functionally correct, robust and matches the client's specification. Tests ensure designs are adhered to and implemented correctly and can identify more bugs within software earlier in development.

## 1.2 Scope

This document covers the testing specification used during development. The intended readers are the Quality Assurance Manager, Project Manager Leader and all software engineers. The testing plan and procedures are specified in SE.QA.06 [1]

#### 1.3 Objectives

By the end of this document the reader should be informed of the nature of the tests and the methodology of testing. They should also be able to clearly identify the functional requirement [2] being tested, the purpose of that test and the expected outcome.

# 2. TASKERSRV / TASKERMAN TESTING

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS1	FR7	Logging into system	Do not enter email address and click on login button	User is told to enter an email address	User access is prohibited
TS2	FR7	Logging into system	Enter email address "antibones123" and click on login button	User is told to enter a valid email address	User access is prohibited
TS3	FR7	Logging into system	Enter email address  "abcde123@example.co.uk"  and click on login button	User is told that the email is not recognised	User access is prohibited
TS4	FR7	Logging into system	Enter email address "mac81@example.co.uk" And click on login button	User directed to main menu	User access is granted
TS5	FR3	Add new team member	On the main menu click on add button Do not enter a name or email and click on Add button	User is told that to enter a name and email	Name and email is rejected
TS6	FR3	Add new team member	Enter name "S" Enter email ""S123@example.co.uk"	User is told that name is invalid	Name is rejected
TS7	FR3	Add new team member (Relevant for later test)	Enter name "Maurice Corriette" Enter email "abc123@example.co.uk"	Input accepted	New member is added to the system
TS8	FR3	Add new team member (Relevant for later test)	Enter name "Qi" Enter email "Qi123@example.co.uk"	Input accepted	New member is added to the system
TS9	FR3	Add new team member(Relevant for later test)	Enter name "Josh Doyle" Enter email "Doyle123@example.co.uk"	Input accepted	New member added to the system
TS10		Add new team member (Relevant for later test	Enter name "Oliver Earl" Enter email "ole123@example.co.uk"	Input accepted	New member added to the system

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS11	FR3	Add new team member	Enter name "M" Enter email "abc123@example.ac.uk"	User is told that name is invalid	Name is rejected
TS12	FR3	Add new team member	Enter name "Maurice\$£%^" Enter email "Maurice@example.co.uk"	User is told that name is invalid	Name is rejected
TS13	FR3	Add new team member	Enter name "abc" Enter email "abc123"	User is told that email is invalid	Email is rejected
TS14	FR3	Add new team member	Enter name "Josh Doyle" Enter email "Josh123@example.co.uk"	User is told that a member with that name already exists	Name is rejected
TS15	FR3	Add new team member	Enter name "Mark Doyle" Enter email "Doyle123@example.co.uk"	User is told that a member with that email already exists	Email is rejected
TS16	FR3	Edit team member	Edit existing member "Maurice Corriette" Change name to blank	User is told to enter a name	Change is rejected
TS17	FR3	Edit team member	Edit existing member "Maurice Corriette" Change name to "M"	User is told that name is invalid	Change is rejected
TS18	FR3	Edit team member	Edit existing member "Maurice Corriette" Change name to "Maurice£\$%"	User is told that name is invalid	Change is rejected
TS19	FR3	Edit team member	Edit existing member "Maurice Corriette" Change name to "Josh Doyle"	User is told that a member with that name already exists	Change is rejected
TS20	FR3	Edit team member	Edit Existing member "Maurice Corriette" Change name to "Maurice Jordan Corriette"	Input accepted	Change is successful

Test Ref	Req being tested	Test I	nput	Output	Pass criteria
TS21	FR3	Edit team member	Edit existing member "Maurice Jordan Corriette" Change email to "abc123"	User is told that email is invalid	Change is rejected
TS22	FR3	Edit team member	Edit existing member "Maurice Jordan Corriette" Change email to "Doyle123@example. co.uk"	User is told that that a member with that email already exists	Change is rejected
TS23	FR3	Edit team member	Edit existing member "Maurice Jordan Corriette" Change email to "mac81@aber.ac.uk"	Input accepted	Change Is successful
TS24	FR3	Delete team member	Delete Existing member "Qi"	Dialogue box appears asking user to confirm deletion	Deletion is successful
TS25	FR3	Delete team member	Delete existing member "John"	User is told that member does not exist	Deletion unsuccessful
TS26	FR4	Add new task	Do not enter task name Enter assigned task member "Josh Doyle" Enter start date "10/11/15 Enter end date "20/11/15" Leave status as default 'allocated'	User told to enter a name,	Creation of task is rejected
TS27	FR4	Add new task	Enter task name "java spike work" Do not enter assigned task member Enter start date "10/11/15 Enter end date "20/11/15" Leave status as default 'allocated'	User is told to enter assigned task member	Creation of task is rejected

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS28	FR4	Add new task	Enter task name "java spike work Enter assigned task member "Josh Doyle" Do not enter a start date Enter end date "20/11/15" Leave status as default 'allocated'	User is told to enter a start date	Creation of task is rejected
TS29	FR4	Add new task	Enter task name "java spike work" Enter assigned task member "Josh Doyle" Enter start date "10/11/15 Do not enter an end date Leave status as default 'allocated'	User is told to enter an end date	Creation of task is rejected

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS30	FR4	Add new task	Enter task name "Q" Enter assigned task member "Oliver Earl" Select start date "26/10/15" Select end date "13/11/15" Enter description "Creation of testing specification" Leave status as default 'allocated'	User told that Task name is invalid	Creation of task is rejected
TS31	FR4	Add new task	Enter task name "QA" Enter assigned task member "Oliver Earl" Select start date "26/10/15" Select end date "13/11/15" Enter description "Creation of testing specification" Leave status as default 'allocated'	User is told that task name is invalid	Creation of task is rejected
TS32	FR4	Add new task	Enter task name "Testing specification" Enter assigned task member "Maurice Jordan Corriette" Select start date "13/11/15" Select end date "23/10/15" Enter description "Creation of testing specification" Leave status as default 'allocated'	User is told that end date must be after the start date	Creation of task is rejected
TS33	FR4	Add new task	Enter task name "QAS" Enter assigned task member "Oliver Earl" Select start date "26/10/15" Select end date "13/11/15" Enter description "Creation of Quality assurance documents" Leave status as default 'allocated'	Input accepted	Task is successfully added
TS34	FR4	Add new task (relevant for later test)	Enter task name "Testing specification" Enter assigned task member "Maurice Jordan Corriette" Select start date "26/10/15" Select end date "13/11/15" Enter description "Creation of testing specification" Leave status as default 'allocated'	Input accepted	Task is successfully added

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS35	FR4	Add new task (relevant for later test)	Enter task name  "PostgreSQL spike work" Enter assigned task member "David Fairbrother" Select start date "12/10/15" Select end date "19/10/15" Enter description "Research into the PostgreSQL software" Leave status as default 'allocated'	Input accepted	Task is successfully added
TS36	FR4	Add new task (relevant for later test)	Enter task name  "Expendable test" Enter assigned task member "Maurice Jordan Corriette" Select start date  "15/10/15" Select end date "25/10/15" Enter description "Task to be deleted" Leave status as default "allocated"	Input accepted	Task is successfully added
TS37	FR4	Add new task	Enter task name "Testing specification" Enter assigned task member "Maurice Jordan Corriette" Select start date "266/101/125" Select end date "13/11/15" Enter description "Creation of testing specification" Leave status as default 'allocated'	User told that start date is invalid	Creation of task is rejected

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS39	FR4	Add new task	Enter task name "Testing specification" Enter assigned task member "Maurice Jordan Corriette" Select start date "26/10/15" Select end date "133/111/155" Enter description "Creation of testing specification" Leave status as default 'allocated'	User is told that end date is invalid	Creation of task is rejected
TS40	FR4	Add new task	Enter task name "Testing specification" Enter assigned task member "Maurice Jordan Corriette" Select start date "10/26/15" Select end date "13/11/15" Enter description "Creation of testing specification" Leave status as default 'allocated'	User is told that start date is invalid	Creation of task is rejected
TS41	FR4	Add new task	Enter task name "Testing specification" Enter assigned task member "Maurice Jordan Corriette" Select start date "26/10/15" Select end date "11/13/15" Enter description "Creation of testing specification" Leave status as default 'allocated'	User is told that end date is invalid	Creation of task Is rejected
TS42	FR4	Add new task	Enter task name "Testing specification" Enter assigned task member "Maurice Jordan Corriette" Select start date "26/10/15" Select end date "13/11/15" Enter description "Creation of testing specification" Leave status as default 'allocated'	User told that task name already exists	Creation of task is rejected

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS43	FR5	Edit existing task	Edit existing task "Testing specification" Change task name to blank Change assigned task member to blank Change description to blank	User told to enter a task name, enter a assigned task member and enter a description	Change is rejected
TS44	FR5	Edit existing task	Edit existing task "Testing specification" Change task name to "T" Change assigned task member to "B" Change description to "F"	User is told that task name is invalid, assigned task member does not exist, and description is invalid	Change is rejected
TS45	FR5	Edit existing task	Edit existing task "Testing specification" Change task name to "A"	User told that task name is invalid	Change is rejected
TS46	FR5	Edit existing task	Edit existing task "QAS" Change task name to "QA"	User told that task name is invalid	Change is rejected

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS47	FR5	Edit existing task	Edit existing task "Testing specification" Change assigned task member to "John"	User told that assigned task member does not exist	Change is rejected
TS48	FR5	Edit existing task	Edit existing task "Testing specification" Change start date to "266/100/155"	User is told to enter a valid start date	Change is rejected
TS49	FR5	Edit existing task	Edit existing task  "Testing specification" Change end date "133/111/155"	User is told to enter a valid start date	Change is rejected
TS50	FR5	Edit existing task	Edit existing task "Testing specification" Change Description to "A"	User is told to description must be more than two character	Change rejected
TS51	FR5	Edit existing task	Edit existing task "Testing specification" Change description to "AB"	User is told the description much be more than two characters	Change rejected
TS52	FR5	Edit existing task	Edit existing task "Testing specification" Change description to "ABC"	Input accepted	Change Successful
TS53	FR5	Edit existing task	Edit existing task  "Testing specification" Change task name to "Design specification"	Input accepted	Change is successful
TS54	FR5	Edit existing task	Edit existing task "Design specification" Change assigned task member to "Josh Doyle"	Input accepted	Change is successful

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS55	FR5	Edit existing task	Edit existing task "Design specification" Change start date to "9/11/15"	Input accepted	Change is successful
TS56	FR5	Edit existing task	Edit existing task "Design specification" Change end date to "30/11/15"	Input accepted	Change is successful
TS57	FR5	Edit existing task	Edit existing task "Design specification" Change description to "Creation of design specification"	Input accepted	Change successful
TS58	FR5	Edit existing task	Edit existing task "Design specification" Change task name to "PostgreSQL spike work"	User told that task name already exists	Change is rejected
TS59	FR3	Delete existing member	Delete member "Oliver Earl"	User is told that Member cannot be deleted as he still has task(s) assigned	Delete is unsuccessful
TS60	FR6 / FR3	Abandon task	Select existing task "QAS" and click on abandon button	In the status columns for the task "Abandoned" should be present"	Task is abandoned
TS61	FR3	Delete existing member	Delete member "Oliver Earl"	Input accepted	Deletion is successfull

Test Ref	Req being tested	Test content	Input	Output	Pass criteria
TS62	FR6	Abandoning task	Select existing task "PostgreSQL spike work" Then click on the abandon button	In the Status column for the task, "Abandoned" should be present	Task is abandoned
TS63	FR6	Edit an abandoned task	Select abandoned task "PostgreSQL spike work" Click on Edit button	User is told task cannot be edited as it has been abandoned	Ability to edit is denied
TS64	FR6	Delete task	Select allocated task "Expendable task" And click on the delete button	User told that task cannot be deleted as it is still allocated and has not yet been abandoned	Deletion of task is unsuccessful
TS65	FR6	Abandon task	Select allocated task "Expendable task" and click on the abandon button	In the Status column for the task, "Abandoned" should be present	Task is abandoned
TS67	FR6	Abandon task	Select abandoned task "Expendable task" and click on delete button	Dialogue box appears asking user to confirm deletion	Task is deleted
TS68	FR7	View list of tasks	Gain access to main menu	Task "PostgreSQL Spike work" and "Design specification" are present in the list.	Tasks are visible and correct in the list

Test ref	Req being tested	Test content	Input	Output	Pass criteria
TS69	FR7	Add task and view list	Add task Enter name "Tasktest" Enter assigned task member "Maurice Jordan Corriette" Enter start date "10/10/15" Enter end date "12/10/15"	Input accepted Task appears in list in main menu	Task is correctly shown in list in main menu
TS70	FR7	Check list order	Gain access to menu	"Design specification" is on the top of the list, followed by "PostgreSQL spike work", followed by "Tasktest"	List is in correct order filtered by end date
TS71	FR7	Check list order	Gain access to menu Filter order via clicking on status column	"Design specification" Is first in the list, followed by "Tasktest", followed by "PostgreSQL spike work"	List in correct order sorted by status Allocated ranked higher than abandoned

# 3. TASKERCLI TESTING

Test ref	Req being tested	Test content	Input	Output	Pass criteria
TS72	FR8	Logging into system	Open desktop application TaskerCLI Do not enter email address and click on login button	User is told to enter an email address	User access is prohibited
TS73	FR8	Logging into system	Enter email address "antibones123" and click on login button	User is told to enter a valid email address	User access is prohibited
TS74	FR8	Logging into system	Enter email address jjj123@aber.ac.uk and click on login button	User is told that the email is not recognised	User access is prohibited
TS75	FR8	Logging into system	Enter email address "Mac81@aber.ac.uk" And click on login button	User directed to main menu	User access is granted
TS76	FR11	Checking for start-up synchronisation	Gain access to main menu and then click on the Connection setting button. Enter Database URL "" Enter Port number "" Then press on the connect button	Coloured Circle should remain Red and error message should appear saying "Error: Invalid Database URL entered"	TaskerCLI Synchronisation with TaskerSRV Unsuccessful
TS77	FR11	Checking for start-up synchronisation	Gain access to main menu and then click on the Connection setting button. Enter Database URL "" Enter Port number "" Then press on the connect button	Coloured Circle should remain Red and error message should appear saying "Error: Invalid port number entered"	TaskerCLI Synchronisation with TaskerSRV Unsuccessful

Test ref	Req being tested	Test content	Input	Output	Pass criteria
TS78	FR11	Checking for start-up synchronisation	Gain access to main menu and then click on the Connection setting button. Enter Database URL "" Enter Port number "" Then press on the connect button	Coloured Circle should remain Red and error message should appear saying "Error: Connection to database failed — Check your connection setting"	TaskerCLI Synchronisation with TaskerSRV Unsuccessful
TS79	FR11	Checking for start-up synchronisation	Gain access to main menu and then click on the Connection setting button. Enter Database URL "" Enter Port number "" Then press on the connect button	Coloured circle should Turn green	TaskerCLI successfully syncs with TaskerSRV
TS80	FR11	Checking for periodic synchronisation	Following previous test, close connection setting page and leave TaskerCLI running for 5 minutes Then reopen the connection settings page.	On the connection setting page last synced should be "5 minutes ago"	TaskercLI successfully syncs with database after 5 minutes
TS81	FR8a	Checking for local storage of tasks	Go to "TaskerCLI program directory" and then access subdirectory "data" Open "Design specification" txt file	User should be able to view data of Design specification	Local storage of Design specification data confirmed

Test ref	Req being tested	Test content	Input	Output	Pass criteria
TS82	FR10	Select task to view	Gain access to main menu and select the task 'Design specification'	In quick view section of main menu, 'Design specification' details including task name, status, assigned task member, start/end date and task elements should be shown	Tasks are selectable and can be viewed in quick view
TS83	FR10	Select multiple tasks to view	Gain access to main menu and select the tasks 'Design specification' and 'PostgreSQL spike work'	In quick view section of main menu, 'Design specification' Details should be shown. Click on the > icon and the second selected task 'PostgreSQL spike work' should be now viewable	Selected tasks can both be viewed in quick view using the < > buttons
TS84	FR10	Edit task status	Edit task 'Design specification' Change task status to 'Completed' Then click save	Input accepted	Edit is successful
TS85	FR10	Edit task status	Edit task 'Design specification' Change task status to 'Abandoned' Then click save	User is told that he/she cannot set task to abandoned	Edit is rejected

Test ref	Req being tested	Test content	Input	Output	Pass criteria
TS86	FR10	Edit task step comments	Edit task 'Design specification' Change task elements to Blank Then click save	User told to give a description for the task	Edit is rejected
TS87	FR10	Edit task step comments	Edit task 'Design specification' Change task elements to 'Task has now been completed' Then click save	Input accepted	Edit is successful
TS88	FR9	Checking synchronisation of local storage of data and that of TaskerSRV	Following changes made to Design specification Access TaskerMAN And view Design specification	Status should now be "Completed" And task elements should be "Task has now been completed"	Confirmation of synchronisation between local storage of data and TaskerSRV through TaskerMAN
TS89	FR10	Edit task status	Edit task "Design specification" change task status to "abandoned" Then click save	Input accepted	Edit is successful
TS90	FR11	Checking synchronisation timing (Test to be carried out immediately after TS)	Access main menu and click on Connection setting button	On connection setting page, "Last synced <1 minutes ago" should be present	TaskerCLI synced immediately after task update

Test ref	Req being tested	Test content	Input	Output	Pass criteria
TS91	FR9	Checking synchronisation of local storage of data and that of TaskerSRV	Following changes made to Design specification Access TaskerMAN And view Design specification	Status should now be "abandoned"	TaskerCLI Successfully synced with TaskerSRV following edit of Design specification

## **REFERENCES**

- [1] N. W. Hardy, C. J. Price and B. P. Tiddeman, *SE.QA.06 Test Procedure Standards*, Aberystwyth University: Software Engineering Group Project, 2015.
- [2] N. W. Hardy, *Tasker Team Tasking System Requirement Specification*, Aberystwyth University: Software Engineering Group Project, 2015.

# **DOCUMENT HISTORY**

Version	CCF No.	Date	Changes made to document	Changed by
0.1	N/A	2015-11-5	Original Version	MAC81
0.2	N/A	2015-11-8	Document up for review	MAC81
0.3	N/A	2015-11-11	Corrected Template	DAF5
1.0	N/A	2015-10-12	{Maurice's changes} – Document Release	MAC81