



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

SCSJ2203: SOFTWARE ENGINEERING

SYSTEM DOCUMENTATION

REPAIR AND MAINTENANCE FOR KTDI STUDENTS

VERSION 3.0

2ND JULY 2020

SCHOOL OF COMPUTING, FACULTY OF ENGINEERING

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Revision Page

a. Overview

Repair and Maintenance for KTDI Students version 3.0 describes about test cases with test data, scenarios, details steps and expected results based on each entity from use case diagram from previous version documentation. This version also explains Test Approach Analysis.

b. Target Audience

Target audiences in this system are for students and college management.

c. Project Team Members

Team Members	Roles	Status
Mohd Anas bin Adnan (B19EC0043)	Team leader 8.1 TC001: Test <Log In> Subsystem: <Login Requirement (UC001)>	Completed
Nur Hasanah bin Sariddon (B19EC0033)	8.3 TC003: Test <Manage Schedule> Subsystem: <Manage Schedule (UC005)>	Completed
Muhammad Amirul Fahmi bin Noor Anim (B19EC0018)	8.4 TC004: Test <Respond> Subsystem: <Receive Respond (UC003)>	Completed
Nurul Najiha binti Hamdan (B19EC0047)	8.2 TC002: Test <Manage Complaint> Subsystem: <Manage Complaint <UC002> 8.5 TC003: Test <Report> Subsystem: <Generate Report (UC004)>	Completed

d. Version Control History

Version	Primary Author(s)	Description of Version	Date Completed
Version 1.0	Nurul Najiha binti Hamdan	Combines the part from <1. Introduction> until <Detailed Description of components: 3.1 Complete Package Diagram> Refines and compile the report	20/05/2020
	Mohd Anas bin Adnan	Continue combining the part starting from <3.2 Detailed Description> until <4. Requirement Matrix>.	20/05/2020
Version 2.0	Nurul Najiha binti Hamdan	Refining and compiling all parts of the report into one full complete report	11/06/2020
Version 3.0	Nurul Najiha binti Hamdan	Combining all the test cases created by each team members. Refining the reports	24/6/2020
	Muhammad Amirul Fahmi bin Noor Anim	Continue compiling all parts of report into one full complete report. Refining the reports	24/6/2020

Note:

This System Documentation (SD) template is adapted from IEEE Recommended Practice for Software Requirements Specification (SRS) (IEEE Std. 830-1998), Software Design Descriptions (SDD) (IEEE Std. 1016-1998 1), and Software Test Documentation (IEEE Std. 829-2008) that are simplified and customized to meet the need of SCSJ2203 course at Faculty of Computing, UTM. Examples of models are from Arlow and Neustadt (2002) and other sources stated accordingly.

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8. Test Cases

8.1 TC001: Test <Log In> Subsystem: <Login Requirement (UC001)>

This test contains the following test cases:

(a) TC001_01: Test <Log In (SD001)>

Test Case ID	TC001_01	Test Case Description	Test the Login Functionality in Repair and Maintenance system of KTDI.		
Created By	Anas	Reviewed By	Dr Iqbal	Version	3.0
QA Tester's Log	Review comments from Dr Iqbal in version 3.0				
Tester's Name	Anas	Date Tested	June 11, 2020	Test Case (Pass/Fail/Not Executed)	Pass
S #	Prerequisites:	S #	Test Data		
1	Access to Chrome Browser	1	Username = savvytech80@gmail.com		
2		2	Password = Savvytech_98		
3		3			
4		4			
Test Scenario	Verify on entering valid user id and password, the customer can login				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Navigate to https://savvytech80.wixsite .	Site should open	As Expected	Pass	
2	Enter Username & Password	Credential can be entered	As Expected	Pass	
3	Click Log in	Student is logged in	As Expected	Pass	
4					

8.2 TC002: Test <Manage Complaint> Subsystem: <Manage Complaint <UC002>

This test contains the following test cases:

(a) TC002_01: Test <Manage Complaint from Student to College Management (SD002)>

Test Case ID	TC002_01	Test Case Description	Test the Complaints Functionality		
Created By	Najiha	Reviewed By	Dr Iqbal Tariq	Version	3.0
QA Tester's Log	Review comments from Dr Iqbal in version 3.0				
Tester's Name	Najiha	Date Tested	June 11, 2020	Test Case	
S #	Prerequisites:		S #	Test Data	
1	User has login to the system		1	Email: iqbaltariq@gmail.com	
			2	Password = iqbaltariq	
			3		
			4		
Test Scenario	Student can start filling in their complaints				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Add complaints in the form provided	Complaint form appear	As expected	Pass	
2	Click submit the complaint form	Data is stored and notifying the	As expected	Pass	
3	View complaints that been submitted	Complaint can be view after	Not expected	Fail	
4					

8.3 TC003: Test <Manage Schedule> Subsystem: <Manage Schedule (UC005)>

This test contains the following test cases:

(a) TC003_01: Test <Manage Schedule (SD003)>

Test Case ID	TC003_01	Test Case Description	Test the Manage Schedule Functionality in Repair and Maintenance system of KTDI.		
Created By	Hasanah	Reviewed By	Dr Iqbal	Version	3.0
QA Tester's Log		Review comments from Dr Iqbal Tariq in version 3.0			
Tester's Name	Hasanah	Date Tested	June 11, 2020	Test Case (Pass/Fail/Not	Pass
S #	Prerequisites:	S #	Test Data		
1	User has log in into system	1	Username = savvytech80@gmail.com		
2		2	Pass = Savvytech_98		
3		3			
4		4			
Test Scenario	College staff can manage the schedule in the system.				
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended	
1	Add Schedule	College staff can add schedule	As Expected	Pass	
2	Delete Schedule	College staff can delete	As Expected	Pass	
3	Update Schedule	College staff can update	As Expected	Pass	
4	View Schedule	College staff can view the	As Expected	Pass	

8.4 TC004: Test <Respond> Subsystem: <Receive Respond (UC003)>

This test contains the following test cases:

(a) TC004_01: Test <Receive Respond (SD004)>

Test Case ID	TC004_01	Test Case Description	Test the respond functionality in Repair and Maintenance system of KTDI.			
Created By	Fahmi	Reviewed By	Dr Iqbal	Version	3.0	
QA Tester's Log		Review comments from Dr Iqbal in version 3.0				
Tester's Name		Fahmi	Date Tested	June 11, 2020	Test Case (Pass/Fail/Not Executed)	
S #	Prerequisites:		S #	Test Data		
1	User has Log in into the system.		1	Username= savvytech80@gmail.com		
2	Student has filed the complaint form.		2	Password= Savvytech_98		
3			3			
4			4			
Test Scenario	Student can get display feedback.					
Step #	Step Details	Expected Results	Actual Results		Pass / Fail / Not executed / Suspended	
1	Collage staff submit the feedback.	Student get notification to display feedback.				
2	Student click view button.	System will display the				
3						
4						

8.5 TC005: Test <Report> Subsystem: <Generate Report (UC004)>

This test contains the following test cases:

(a) TC005_01: Test <Generate Report (SD005)>

Test Case ID	TC004_01	Test Case Description	Test the complaints' report generate and manage by college			
Created By	Najiha	Reviewed By	Dr Iqbal Tariq	Version	3.0	
QA Tester's Log	Review comments from Dr Iqbal Tarid in version 3.0					
Tester's Name	Najiha	Date Tested	June 11, 2020	Test Case (Pass/Fail/Not		
S #	Prerequisites:		S #	Test Data Requirement		
1	User has login to the system		1			
2	Student has filed the complaint form		2			
3	Receive respond status from college staff		3			
4			4			
Test Scenario	College management generates report the complaints filed by students					
Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended		
1	Click on view complaints	College should be redirected to complaint page				
2	Choose complaint to view	Full complaint forms should be generated by the system and stored in				
3	Display generated report	Generated complaints should be displayed to college staffs				
4	Save report	System must save report so that college staffs can inform technicians				

9. Task Approach Analysis

The test approach includes the use of black-box testing which is also called functional testing and behavioural testing. In this test analysis both of black-box testing strategies is used which is Equivalence Portioning (EP) and Boundary Value Analysis (BVA). EP is a technique where the test input data is divided into a range of values and one input value is selected from each range. BVA is a technique to test boundary value between valid and invalid partitions in test case design. This can be shown by test cases that contains input data which can be measure as Boolean.

Test Case ID	Step#	Input data	Valid	Invalid
TC001_01	3	Username	Valid email address or valid Facebook email.	Invalid email address, Invalid Facebook email, Null
	3	Password	Valid email password or valid Facebook password.	Invalid email password, Invalid Facebook password, Null
TC002_01	3	Email	Valid email address	Invalid email, Null
	3	Password	Valid password	Invalid password, Null
TC003_01	4	Add data	Add schedule form	Null schedule form
	4	Update data	Update schedule	Null fields
TC004_01	2	Username	Valid email address	Invalid email, Null
		Password	Valid password	Invalid password, Null
TC005_01	4	Display report	Valid generated report	Null fields

Appendix A: Traceability Matrix

Test Case ID	Use Case ID/ Sequence Diagram ID	Package ID
TC001 for Log in Subsystem • TC001_01	UC001 • SD001	P001
TC002 for Manage Complaint Subsystem • TC002_01 • TC002_02	UC002 • SD002 • SD003	P002
TC002 for Manage Schedule Subsystem • TC003_01	UC005 • SD004	P003
TC003 for Respond Subsystem • TC004_01	UC003 • SD005	P004
TC003 for Report Subsystem • TC005_01	UC004 • SD005	P005