

Module 5- Computer Systems (2021-22)

Project



Software Testing Document (STD) Template

Team ID: 31	Project Name: Raspberry Home
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Instructions:

1. Refer to the below table and complete all the sections with clarity.
2. Select those test strategies that are applicable to test your application.
3. Make sure to refer to the "Development-Security by Design Checklist" to see the possible vulnerabilities in your application.
4. Feel free to add features and test cases in the table that are essential to test your application.
5. You can use Selenium, SonarQube, and/or GitLab CI/CD to perform source code review, static and dynamic application testing, etc.

Test Strategy	Date (When did you perform the testing?)	Process/Function (Features to be tested)	Test Case	Step	Description	Status (Passed/Failed /Open)	Expected Results	Actual Result	Mitigation plan/Solutions	Review on the Mitigation plan (Passed/Failed)	Remarks on the Failed mitigation plan
Manual Testing	1/11/2021	Authentication	Logging In	1	The correct user ID and password should be entered.	Passed	Users should access the home page.	User directed to the home page.	i) Check if there is any connection issues between the home page and its sub page. ii) Check if there is any design issue. iii) Check if this test case is not passed with a particular user, etc.	-	-
...	1/11/2021	...	...	2	Login with wrong credentials should not be entered.	Passed	Users should not access the home page.	Users cannot be directed to the home page, and still stay in the login page and get the info says try again.	i) Check if there is any design issue. ii)Check if there are any issues with cookies. Try again after cleaning cookies.	-	-

...		...	...	3	Enter a wrong password more than 5 times	Open	User will get the message says "reset password"	-	i)check if there is any design issue	-	-
		...	...	4	Get a email verification code	Open	Users can get the verification and use it to reset their password.	-	i)Check if the input email is correct. ii)Check if the code is in the bin. iii)Check if there is any design issue	-	-
		...	Register	1	The length of the password should be of 8 characters which must contain A-Za-z0-9	Open	The password is Strong.	-	i) Check if there is a password pattern restriction in the html file.	-	-
	2/11/2021	...	SQL injection	1	The injection code should not be executed.	Failed	The injection code should not be executed.	The injection code is executed	i)Use prepared statements to avoid SQL injection	ToDo	ToDo
	22/10/2021	Function	Turn-on Turn-off light manually	1	Clicking on the switch component to turn-on and turn-off light.	Passed	User can control light by clicking switch button	User can control light by clicking switch button	i)Check if the circuit is correct connected ii)Check if the LED breaks down iii)Check if there is any design issue	-	-
	22/10/2021	...	Turn-on Turn-off light automatically	2	After switching automatic on, the light can turn-on and turn-off automatically.	Passed	The light can turn-on when closing the curtain. And turn-off when it is sunny outside.	The light turn-on, turn-off automatically as expected.	i)Check if the curtain is completely closed ii)Check if the environment is so bright iii)Check if there is any design issue	-	-
	-	...	message system	1	The system can send messages to users to check if they are at home.	Open	The system can send the message to the user and turn-off the light if there is no reply within 10 min.	-	i) Check the network connection ii)Check if there is any design issue	-	-

	-	...	log system	1	The system can record the operation history.	Open	The log can be found in the database after any operations to the system.	-	i)Check if the database is correct connected with the program ii)Check if there is any design issue.	-	-
	-	Authorization	Normal user can not edit users' information	1	Normal users can not access the admin page.	Open	Normal users don't have the "management" option button.	-	i)Check if the testing "user" is a normal user ii)Check if there is any design issue	-	-
Application Testing (SolarQube)	2/11/2021	source code review		1		Passed	Passed with less issues	screenshot attach below	i)Check the details, and fix the issues.	-	-
Application Testing (Selenium)	2/11/2021	Integration test		1		Passed	Passed	screenshot attach below	i)Check the details, and fix the issues.	-	-
Acceptance Testing	1/11/2021	Acceptance		1	let Someone who is low-educated or without technical experience to use the web-app	Passed	The application is easy to use and user-friendly.	The Testee thinks it is a handy web-application.	i)Make the web-application more user-friendly	-	-

SonarQube test result

sonarqube

ProjectsIssuesRulesQuality ProfilesQuality GatesAdministration

?

Search for projects...

A

mod5-project

☆

master

Last analysis had 4 warnings

November 2, 2021, 2:07 PM

Version not provided

OverviewIssuesSecurity HotspotsMeasuresCodeActivity

Project SettingsProject Information

Passed

All conditions passed.

New CodeOverall Code

15

Bugs

Reliability

C

0

Vulnerabilities

Security

A

18

Security Hotspots

0.0%

Reviewed

Security Review

E

3h 59min

Debt

48

Code Smells

Maintainability

A

0.0%

Coverage on 225 Lines to cover

-

Unit Tests

0.0%

Duplications on 21k Lines

0

Duplicated Blocks

Selenium test result

Selenium IDE - Raspberry Home

Project: Raspberry Home

Tests +

Search tests...

✓ Change the GPIO pin of a component

✓ Log in succesfully

✓ Log in with wrong credentials

✓ Log out succesfully

✓ Send a message to a user

✓ Switch to the different rooms

✓ Toggle to Dashboard, Components, Users and Chat

✓ Turn automatic lights on

✓ Turn light off

✓ Turn light on

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http://localhost:8080/login

⌵

	Command	Target	Value
1	✓ open	http://localhost:8080/login	
2	✓ set window size	787x824	
3	✓ click	css=.btn	
4	✓ click	id=flexSwitchLights	
5	✓ click	css=.nav-item:nth-child(6) .text-dark:nth-child(2)	

Command

Target

Value

Description

//

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LogReference

Running 'Turn light on'

1. open on http://localhost:8080/login OK

2. setWindowSize on 787x824 OK

3. click on css=.btn OK

4. click on id=flexSwitchLights OK

5. click on css=.nav-item:nth-child(6) .text-dark:nth-child(2) OK

'Turn light on' completed successfully

16:33:07

16:33:07

16:33:07

16:33:07

16:33:08

16:33:09

16:33:09