

INTEGRATED DESIGN PROJECT (IDP II)

CSE-460

AUTOMATED FRESHNESS AND DEFECT DETECTOR

SOFTWARE TESTING DOCUMENT

Submitted by

GROUP - FOXTROT A

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Introduction

Automation testing helps us to test the various features of an existing system very easily, and also to look for bugs/errors. We have used Katalon to test authentication, processing and interaction within our system. In three test suites, we have carried out six test cases to test the functionality of the site. This ensures that minimal faults/crashes occur during the usage of the system by the respected users.

Total 3 Test Suites:

- Authentication testing
- Data and image processing
- Interaction

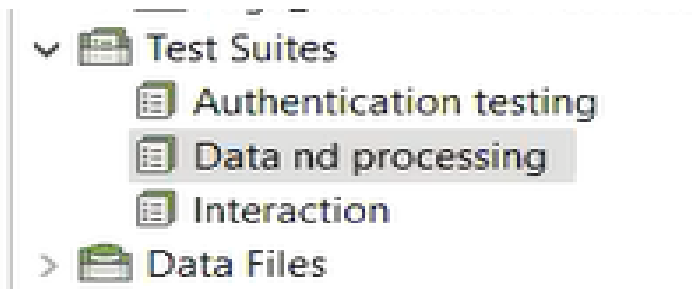


Fig: test suits

Test Cases

1. Authentication testing:

- Authentication - Here we have Tested the authentication using the correct email address and password and prove that successful signing occurs.

Item	Object	Input	Output
→ 1 - Open Browser		""	
→ 2 - Navigate To Url		"http://localhost/Frontend/"	
→ 3 - Click	b_Sign in		
→ 4 - Set Text	input_OWNER LOGIN_Admin	"Zim"	
→ 5 - Click	label_Email address		
→ 6 - Set Text	input_Owner Name_EmailAd	"skashminzim@gmail.com"	
→ 7 - Click	label_Password		
→ 8 - Set Encrypted Text	input_Email address_Passwor	"bXlalOwiFVjbt51NFYms+g=:"	
→ 9 - Click	button_Sign In		
→ 10 - Click	h2_View the amount of fresh		
→ 11 - Close Browser			

- False Authentication - In this test case we have used the correct user and email address but also an incorrect password that denies successful sign in, proving that authentication works properly.

Item	Object	Input	Output
→ 1 - Open Browser		""	
→ 2 - Navigate To Url		"http://localhost/Frontend/"	
→ 3 - Click	b_Sign in (1)		
→ 4 - Set Text	input_OWNER LOGIN_Admin	"Zim"	
→ 5 - Click	label_Email address (1)		
→ 6 - Set Text	input_Owner Name_EmailAd	"skashminzim@gmail.com"	
→ 7 - Click	label_Password (1)		
→ 8 - Set Encrypted Text	input_Email address_Passwor	"RigbBhfdqOBGNIJIWM1CIA=:"	
→ 9 - Click	button_Sign In (1)		
→ 10 - Click	div_Sign in		
→ 11 - Click	a_Records		
→ 12 - Close Browser			

2. Data and image processing:

- Image Processing - In this test case we take a snapshot from the user interface by using the camera involved in the system. The Picture taken by the camera is then compared with our data set and it determines the freshness of the detected fruit.

Item	Object	Input	Output
→ 1 - Open Browser		""	
→ 2 - Navigate To Url		"http://localhost/Frontend/"	
→ 3 - Click	b_Image Processing (1)		
→ 4 - Click	body_AFDD Menu		
→ 5 - Click	canvas_Snap_canvas		
→ 6 - Click	button_Snap		
→ 7 - Close Browser			

- Record Retrieval- in this test case the owner first signs in, then goes to the records page and provides a date in a text field for which the records of all the detected fruit and the ratio of the freshness and defected fruit are displayed in a table.

Item	Object	Input	Output
→ 1 - Open Browser		""	
→ 2 - Navigate To Url		"http://localhost/Frontend/"	
→ 3 - Click	b_Sign in (2)		
→ 4 - Set Text	input_OWNER LOGIN_Admin	"Zim"	
→ 5 - Click	label_Email address (2)		
→ 6 - Set Text	input_Owner Name_EmailAd	"skashminzim@gmail.com"	
→ 7 - Click	label_Password (2)		
→ 8 - Set Encrypted Text	input_Email address_Passwor	"bXlaIOWiFVjbt51NFYms+g=:"	
→ 9 - Click	button_Sign In (2)		
→ 10 - Click	button_Search		
→ 11 - Click	button_Search		
→ 12 - Click	button_Search		
→ 13 - Close Browser			

3. Interaction:

- Component Button Testing - Our user interface involves separate on all buttons for our four major components: The jetson nano, The conveyor belt, the camera and the Servo motor.

Item	Object	Input	Output
→ 1 - Open Browser		""	
→ 2 - Navigate To Url		"http://localhost/Frontend/"	
→ 3 - Click	span_Automated Freshness		
→ 4 - Click	span_Automated Freshness		
→ 5 - Click	span_Automated Freshness		
→ 6 - Click	span_Automated Freshness		
→ 7 - Click	span_Automated Freshness		
→ 8 - Click	span_Automated Freshness		
→ 9 - Click	span_Automated Freshness		
→ 10 - Click	span_Automated Freshness		
→ 11 - Close Browser			

- Navbar Routing - This test case ensures that routing between the different pages in the navigation bar works properly.

Item	Object	Input	Output
→ 1 - Open Browser		""	
→ 2 - Navigate To Url		"http://localhost/Frontend/"	
→ 3 - Click	b_Image Processing		
→ 4 - Click	b_Records		
→ 5 - Click	a_About		
→ 6 - Click	a_Sign in		
→ 7 - Click	b_Home		
→ 8 - Close Browser			