

Lab 5 Report

Name: 許哲維

Student ID: 111598066

Date: 2023.06.14

1 Test Plan

1.1 Test requirements

在 Lab 5 中，要測試的系統是 KeystoneJS，這是個開源的框架，用於在 Node.js 中開發 Database 導向的網站、應用程式與 API。KeystoneJS 使創建複雜的網站和應用程式變得容易，並帶有一個漂亮的自動生成的管理 UI。

本次實驗只需要測試要求之功能，從中設計至少 10 個測試案例並為每個特性設計一個或多個測試案例。

1.2 Test Strategy

- Post Features
 - Create a post on the Admin UI page
 - Edit a post on the Admin UI page
 - Delete a post on the Admin UI page
 - Search posts by keyword on the Admin UI page
- Comment Features
 - Create a comment on Admin UI page
 - Edit a comment on Admin UI page
 - Delete a comment on Admin UI page
- Category Features
 - Create a category on Admin UI page
 - Show posts of the specific category by pressing category name on the "Blog" page
- Enquiry Feature
 - Create an enquiry on the "Contact" page
 - Delete an enquiry on Admin UI page
- User Feature
 - Create a new user on Admin UI page (Name, Email, Phone, and Password must be set when creating the new user)

1.3 Test activities

To implement the proposed strategy, the following activities are planned to perform.

No.	Activity Name	Plan hours	Schedule Date
1	Study KeystoneJS and Docker	2	2023.06.01
2	Learn Robot Framework	8	2023.06.03
3	Design test cases for the selected methods	5	2023.06.08
4	Implement test cases	6	2023.06.11
5	Complete Lab5 report	3	2023.06.14

1.4 Design Approach

使用 ISP 為每個待測試功能設計案例。測試工具將使用 Robot Framework 來達成測試需求。

1.5 Success criteria

所有所選功能之設計案例必須全部通過。

2 Test Design

To fulfill the test requirements listed in section 1.1, the following methods are selected and corresponding test cases are designed.

Test Case ID	TC-001
Name of Corresponding Scenario (or Use Case)	Create Post Test (happy path)
Descriptions of the Scenario (or Use Case)	<ol style="list-style-type: none"> 1. 以管理員身分登錄 2. 選擇【Posts】並建立一則新貼文 3. 輸入新貼文內容(e.g. 標題) 4. 保存貼文 5. 顯示已成功建立新貼文
Pre-condition or Pre-Test Setup (Given)	<ol style="list-style-type: none"> 1. KeystoneJS 正在執行 2. 在 Chrome 瀏覽器開啟 KeystoneJS
Test Steps or Actions taken by User (When)	<ol style="list-style-type: none"> 1. 用 URL = \$SERVER 跳轉到登錄畫面 2. 用 \$DEMO EMAIL 與 \$DEMO PASSWORD 以管理員身分登錄 3. 選擇【Posts】 4. 建立一則新貼文 5. 用 \$Test String 輸入新貼文標題 6. 建立貼文 7. 驗證是否成功創建新貼文

	8. 登出
Input Data (for Performing the Actions)	\$SERVER = "http://127.0.0.1:3000/keystone/signin" \$DEMO EMAIL = "demo@keystonejs.com" \$DEMO PASSWORD = "demo" \$Test String = {Null, Blank Space, String(一般長度、最大長度、混和字符), Digit, Symbol}
Expected Results and Acceptance Criteria to be Verified (Then)	建立一則具有正確標題的貼文。 所有不正確的輸入都會被 Catch 並顯示錯誤訊息。
Post Tear-Down (or Restoring Procedures)	1. 關閉 Chrome 瀏覽器

Test Case ID	TC-003
Name of Corresponding Scenario (or Use Case)	Edit Post Test (happy path)
Descriptions of the Scenario (or Use Case)	1. 以管理員身分登錄 2. 選擇【Posts】 3. 編輯貼文並保存 4. 顯示已成功保存貼文
Pre-condition or Pre-Test Setup (Given)	1. KeystoneJS 正在執行 2. 在 Chrome 瀏覽器開啟 KeystoneJS
Test Steps or Actions taken by User (When)	1. 用 URL = \$SERVER 跳轉到登錄畫面 2. 用 \$DEMO EMAIL 與 \$DEMO PASSWORD 以管理員身分登錄 3. 選擇【Posts】 4. 編輯貼文 5. 用 \$Test String 編輯貼文內容 6. 儲存貼文 7. 驗證是否編輯成功 8. 登出
Input Data (for Performing the Actions)	\$SERVER = "http://127.0.0.1:3000/keystone/signin" \$DEMO EMAIL = "demo@keystonejs.com" \$DEMO PASSWORD = "demo" \$Test String = {Null, Blank Space, String(一般長度、最大長度、混和字符), Digit, Symbol}

Expected Results and Acceptance Criteria to be Verified (Then)	藉由正確的輸入編輯貼文。 所有不正確的輸入都會被 Catch 並顯示錯誤訊息。
Post Tear-Down (or Restoring Procedures)	1. 關閉 Chrome 瀏覽器

Test Case ID	TC-011
Name of Corresponding Scenario (or Use Case)	Delete Comment Test (happy path)
Descriptions of the Scenario (or Use Case)	1. 以管理員身分登錄 2. 選擇【Posts】的【Comments】 3. 刪除評論 4. 在【Comments】顯示為空
Pre-condition or Pre-Test Setup (Given)	1. KeystoneJS 正在執行 2. 在 Chrome 瀏覽器開啟 KeystoneJS
Test Steps or Actions taken by User (When)	1. 用 URL = \$SERVER 跳轉到登錄畫面 2. 用 \$DEMO EMAIL 與 \$DEMO PASSWORD 以管理員身分登錄 3. 選擇【Posts】 4. 選擇【Comments】 5. 刪除評論 6. 驗證確認是否成功刪除評論 7. 登出
Input Data (for Performing the Actions)	\$SERVER = "http://127.0.0.1:3000/" \$DEMO EMAIL = "demo@keystonejs.com" \$DEMO PASSWORD = "demo"
Expected Results and Acceptance Criteria to be Verified (Then)	刪除評論。 所有不正確的結果都會被 Catch 並顯示錯誤訊息。
Post Tear-Down (or Restoring Procedures)	1. 關閉 Chrome 瀏覽器

The details of the design are given below:

Lab5_TestCase.xlsx

3 Test Implementation

Section 2 中指定的測試用例設計是使用 Robot Framework 實現的。下面給出了 3 個選定測試案例的測試腳本。其餘測試腳本實現可以在[連結](#)中找到。

Test Case ID.	Test method	Source test code
TC-001	Create Post Test	<pre>Create Post Test Signin Keystonejs Click to Post Page Create Action \${Result} Get Text class=css-ctpeu Should Contain \${Result} \${isSuccess} Signout Keystonejs</pre>
TC-003	Edit Post Test	<pre>Edit Post Test Signin Keystonejs Click to Post Page Click Link link=Test Sleep 1.2s Input Action \${Result} Get Text class=css-ctpeu Should Contain \${Result} \${isSuccess} Signout Keystonejs</pre>
TC-011	Delete Comment Test	<pre>Delete Comment Test Signin Keystonejs Click to Post Page Click to Comment Page Delete Action \${Result} Get Text class=css-pbvij Should Contain \${Result} \${CommentIsEmpty} Signout Keystonejs</pre>

4 Test Results

Environment & Infrastructure

windows 10

Robot Framework

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
PS D:\STV\docker_test\RobotFramework_new\tests> robot keystoneJS_tests.robot
=====
keystoneJS_tests
=====
DevTools listening on ws://127.0.0.1:62872/devtools/browser/b7656f8b-998b-4463-84ba-65cb07694f5b
Create Post Test | PASS |
Search Post Test | PASS |
Search Post Test | PASS |
Edit Post Test | PASS |
Create Comment Test | PASS | Your changes have been saved successfully
Edit Comment Test | PASS | Your changes have been saved successfully
Edit Comment Test | PASS |
Create Category Test | PASS |
Show Posts in Blog Page When Categories is Test Test
DevTools listening on ws://127.0.0.1:63388/devtools/browser/3852a28a-40f0-4286-b909-809cbe4d654a
Show Posts in Blog Page When Categories is Test Test | PASS |
Create Gallery Test | PASS |
Delete Gallery Test | PASS |
Delete Category Test | PASS |
Delete Comment Test | PASS |
Delete Post Test | PASS |
Create User Test | PASS |
keystoneJS_tests
13 tests, 13 passed, 0 failed
=====
Output: D:\STV\docker_test\RobotFramework_new\tests\output.xml
Log: D:\STV\docker_test\RobotFramework_new\tests\log.html
Report: D:\STV\docker_test\RobotFramework_new\tests\report.html
PS D:\STV\docker_test\RobotFramework_new\tests>
```

keystoneJS tests Report

Generated
20230613 10:27:30 UTC+08:00
2 hours 48 minutes ago

Summary Information

Status: All tests passed
Start Time: 20230613 10:19:24.186
End Time: 20230613 10:27:30.285
Elapsed Time: 00:08:06.099
Log File: log.html

Test Statistics

Total Statistics		Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
All Tests		13	13	0	0	00:07:59	
Statistics by Tag		Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
No Tags							
Statistics by Suite		Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
keystoneJS tests		13	13	0	0	00:08:06	

Test Details

All Tags Suites Search

Suite:

Test:

Include:

Exclude:

Search Clear Help

keystoneJS tests Log						Generated 20230613 10:27:30 UTC+08:00 2 hours 48 minutes ago	REPORT
Test Statistics							
Total Statistics		Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
All Tests		13	13	0	0	00:07:59	
Statistics by Tag		Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
No Tags							
Statistics by Suite		Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
keystoneJS tests		13	13	0	0	00:08:06	
Test Execution Log							
- [SUITE] keystoneJS tests							00:08:06.099
Full Name:		keystoneJS tests					
Source:		D:\IT\workspace\test\RobotFramework_new\tests\keystoneJS_tests.robot					
Start / End / Elapsed:		20230613 10:19:24.186 / 20230613 10:27:30.285 / 00:08:06.099					
Status:		13 tests total, 13 passed, 0 failed, 0 skipped					
• [SUITE] Suite: Run Keywords Open Keystonejs							
• [TEARDOWN] Suite: Run Keywords Close Keystonejs							00:08:03.212
• [TEST] Create Post Test							00:00:38.350
• [TEST] Search Post Test							00:00:23.981
• [TEST] Edit Post Test							00:00:36.311
• [TEST] Create Comment Test							00:00:56.463
• [TEST] Edit Comment Test							00:00:37.319
• [TEST] Create Category Test							00:00:41.328
• [TEST] Show Posts in Blog Page When Categories is Test Test							00:00:11.310
• [TEST] Create Gallery Test							00:00:43.113
• [TEST] Delete Gallery Test							00:00:36.431
• [TEST] Delete Category Test							00:00:33.108
• [TEST] Delete Comment Test							00:00:33.062
• [TEST] Delete Post Test							00:00:29.900
• [TEST] Create User Test							00:00:57.703

5 Summary

在 Lab 5 中，使用 Robot Framework 與 ISP 設計並實現了 13 個測試案例，且執行結果皆全部通過，因此滿足 Section 1 中的要求。

而在 Lab 5 的練習中，先透過 Robot Framework 的範例程式來學習如何操作、撰寫測試腳本，而藉由設定關鍵字來減少行數，在使用前原有 200 多行，使用後僅剩 100 多行，使得測試腳本更精簡、更有可讀性，在這一次的 Lab 令我學到很多！