Lab4 Report

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1 Test Plan

1.1 Summary/Scope

The system to be tested for this lab is KeystoneJS, an open source framework for developing database-driven websites, applications and APIs in Node.js. KeystoneJS makes it easy to create sophisticated web sites and apps, and comes with a beautiful auto-generated Admin UI. require to test only 12 features. Design one or more test cases for the selected features, and design at least 9 test cases

1.2 Features to be tested

1.2.1 Create a post on the Admin UI page

1.2.2 Edit a post on the Admin UI page

1.2.3 Delete a post on the Admin UI page

1.2.4 Search posts by keyword on the Admin UI page

1.2.5 Create a comment on Admin UI page

1.2.6 Edit a comment on Admin UI page

1.2.7 Delete a comment on Admin UI page

1.2.8 Create a category on Admin UI page

1.2.9 Show posts of the specific category by pressing category name on the "Blog" page

1.2.10 Create an enquiry on the "Contact" page

1.2.11 Delete an enquiry on Admin UI page

1.2.12 Create a new user on Admin UI page (Name, Email, Phone, and Password must be set when creating the new user)

1.3 Success criteria of completing the test

All test cases designed for the selected features must pass.

1.4 Test environment and/or infrastructure

1.4.1 Windows

1.4.2 chrome

1.4.3 Python selenium 4.9.1

1.4.4 python3.10.7

1.5 Test approaches

1.5.1 Using ISP to design test cases for each feature to be tested.

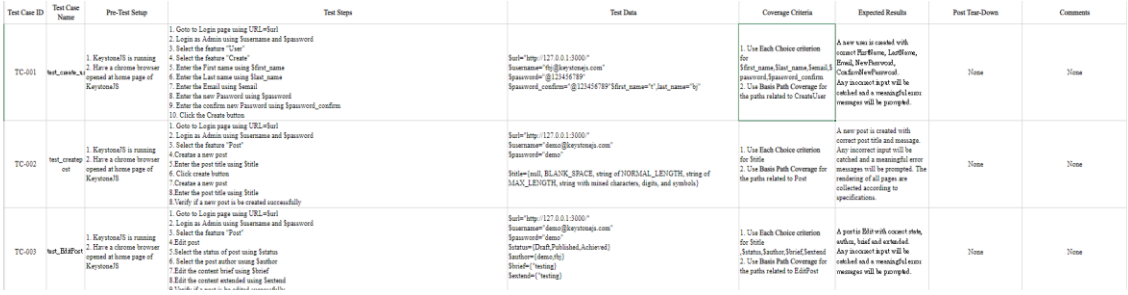
1.5.2 Using Basis Path Coverage.

1.5.3 Using python selenium and pytest perform the test.

1.6 Test approaches

No.	Activity Name	Plan hours	Schedule Date
1	Complete run KeystoneJS application on Docker.	0.5	2023/05/18
2	Learn Selenium with Python	1	2023/05/19
3	Design test cases for the selected feature	3	2023/05/20
4	Implement test cases and Lab Report	3	2023/05/22

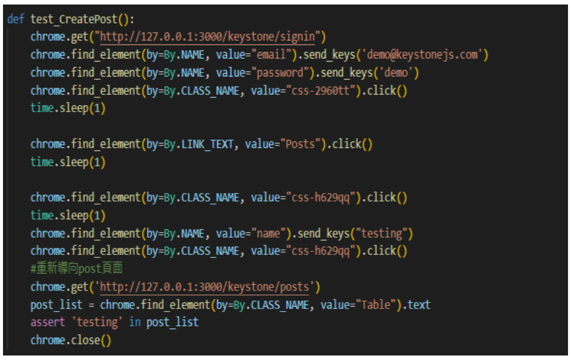
2 Test Design



Test Case ID	Test Case Name	Pre-Test Setup	Test Steps	Test Data	Coverage Criteria	Expected Results	Post Tear-Down	Comments
TC-001	test_create_u	1. KeystoneJS is running 2. Have a chrome browser opened at home page of KeystoneJS	1. Goto to Login page using URL=$url 2. Login as Admin using $username and $password 3. Select the feature "User" 4. Select the feature "Create" 5. Enter the First name using $first_name 6. Enter the Last name using $last_name 7. Enter the Email using $email 8. Enter the new Password using $password 9. Enter the confirm new Password using $password_confirm 10. Click the Create button	$url="http://127.0.0.1:3000/" $username="tbj@keystonejs.com" $password="@123456789" $password_confirm="@123456789"$first_name="t",last_name="bj"	1. Use Each Choice criterion for $first_name,$last_name,$email,$password,$password_confirm 2. Use Basis Path Coverage for the paths related to CreateUser	A new user is created with correct FirstName, LastName, Email, NewPassword, ConfirmNewPassword. Any incorrect input will be catched and a meaningful error messages will be prompted.	None	None
TC-002	test_createpost	1. KeystoneJS is running 2. Have a chrome browser opened at home page of KeystoneJS	1. Goto to Login page using URL=$url 2. Login as Admin using $username and $password 3. Select the feature "Post" 4.Creatae a new post 5.Enter the post title using $title 6. Click create button 7.Creatae a new post 8.Enter the post title using $title 8.Verify if a new post is be created successfully	$url="http://127.0.0.1:3000/" $username="demo@keystonejs.com" $password="demo" $title={null, BLANK_SPACE, string of NORMAL_LENGTH, string of MAX_LENGTH, string with mixed characters, digits, and symbols}	1. Use Each Choice criterion for $title 2. Use Basis Path Coverage for the paths related to Post	A new post is created with correct post title and message. Any incorrect input will be catched and a meaningful error messages will be prompted. The rendering of all pages are collected according to specifications.	None	None
TC-003	test_EditPost	1. KeystoneJS is running 2. Have a chrome browser opened at home page of KeystoneJS	1. Goto to Login page using URL=$url 2. Login as Admin using $username and $password 3. Select the feature "Post" 4.Edit post 5.Select the status of post using $status 6. Select the post author usung $author 7.Edit the content brief using $brief 8.Edit the content extended using $extend 9.Verify if a post is be edited successfully	$url="http://127.0.0.1:3000/" $username="demo@keystonejs.com" $password="demo" $status={Draft,Published,Achieved} $author={demo,tbj} $brief={"testing} $extend={"testing}	1. Use Each Choice criterion for $title ,$status,$author,$brief,$extend 2. Use Basis Path Coverage for the paths related to EditPost	A post is Edit with correct state, author, brief and extended. Any incorrect input will be catched and a meaningful error messages will be prompted.	None	None

The details of the design are given below: https://course.selab.ml/stv-gitlab/111598027/GeoProject/blob/master/LabReport/Lab4/Lab4_testcase1.xlsx

3 Test Implementation

Test Case ID	Test Case Name	Source Test Code
TC-002	test_createpost	

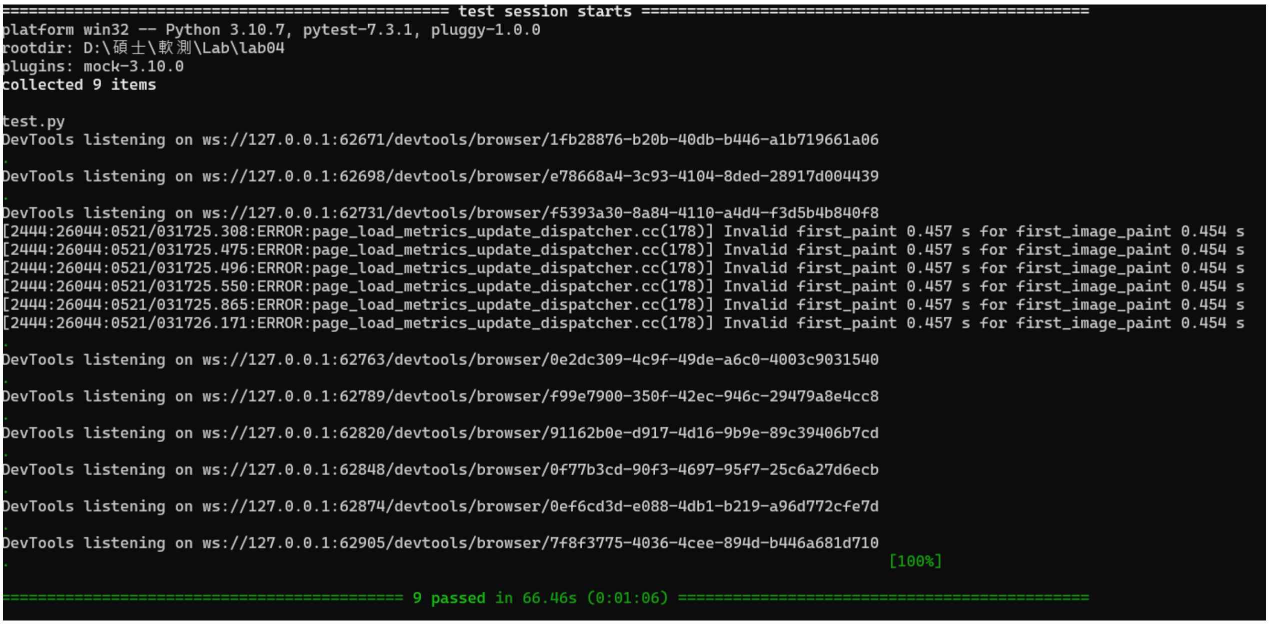
```python
def test_CreatePost():
    chrome.get("http://127.0.0.1:3000/keystone/signin")
    chrome.find_element(by=By.NAME, value="email").send_keys('demo@keystonejs.com')
    chrome.find_element(by=By.NAME, value="password").send_keys('demo')
    chrome.find_element(by=By.CLASS_NAME, value="css-2960tt").click()
    time.sleep(1)

    chrome.find_element(by=By.LINK_TEXT, value="Posts").click()
    time.sleep(1)

    chrome.find_element(by=By.CLASS_NAME, value="css-h629qq").click()
    time.sleep(1)
    chrome.find_element(by=By.NAME, value="name").send_keys("testing")
    chrome.find_element(by=By.CLASS_NAME, value="css-h629qq").click()
    #重新導向post頁面
    chrome.get('http://127.0.0.1:3000/keystone/posts')
    post_list = chrome.find_element(by=By.CLASS_NAME, value="Table").text
    assert 'testing' in post_list
    chrome.close()
```

The design of test cases specified in Section 2 was implemented using python selenium. The test scripts of 1 selected test case are given below and the others is in the gitlab.

4 Test Result



```
================================================= test session starts =================================================
platform win32 -- Python 3.10.7, pytest-7.3.1, pluggy-1.0.0
rootdir: D:\碩士\軟測\Lab\lab04
plugins: mock-3.10.0
collected 9 items

test.py
DevTools listening on ws://127.0.0.1:62671/devtools/browser/1fb28876-b20b-40db-b446-a1b719661a06
.
DevTools listening on ws://127.0.0.1:62698/devtools/browser/e78668a4-3c93-4104-8ded-28917d004439
.
DevTools listening on ws://127.0.0.1:62731/devtools/browser/f5393a30-8a84-4110-a4d4-f3d5b4b840f8
[2444:26044:0521/031725.308:ERROR:page_load_metrics_update_dispatcher.cc(178)] Invalid first_paint 0.457 s for first_image_paint 0.454 s
[2444:26044:0521/031725.475:ERROR:page_load_metrics_update_dispatcher.cc(178)] Invalid first_paint 0.457 s for first_image_paint 0.454 s
[2444:26044:0521/031725.496:ERROR:page_load_metrics_update_dispatcher.cc(178)] Invalid first_paint 0.457 s for first_image_paint 0.454 s
[2444:26044:0521/031725.550:ERROR:page_load_metrics_update_dispatcher.cc(178)] Invalid first_paint 0.457 s for first_image_paint 0.454 s
[2444:26044:0521/031725.865:ERROR:page_load_metrics_update_dispatcher.cc(178)] Invalid first_paint 0.457 s for first_image_paint 0.454 s
[2444:26044:0521/031726.171:ERROR:page_load_metrics_update_dispatcher.cc(178)] Invalid first_paint 0.457 s for first_image_paint 0.454 s
.
DevTools listening on ws://127.0.0.1:62763/devtools/browser/0e2dc309-4c9f-49de-a6c0-4003c9031540
.
DevTools listening on ws://127.0.0.1:62789/devtools/browser/f99e7900-350f-42ec-946c-29479a8e4cc8
.
DevTools listening on ws://127.0.0.1:62820/devtools/browser/91162b0e-d917-4d16-9b9e-89c39406b7cd
.
DevTools listening on ws://127.0.0.1:62848/devtools/browser/0f77b3cd-90f3-4697-95f7-25c6a27d6ecb
.
DevTools listening on ws://127.0.0.1:62874/devtools/browser/0ef6cd3d-e088-4db1-b219-a96d772cfe7d
.
DevTools listening on ws://127.0.0.1:62905/devtools/browser/7f8f3775-4036-4cee-894d-b446a681d710
.                                                                                                 [100%]

============================================ 9 passed in 66.46s (0:01:06) =============================================
```