
VMO HOLDINGS

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QA Technical Assignment

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OVERVIEW

This paper is the write-up for the process of doing assignments at

<https://github.com/HandshakesByDC/qa-assignment>

GOALS

1. Develop API automation test to validate the following user stories using **Jest** with **Typescript**.
2. Write some high-level test scenarios for each user story.
3. Register the bug(s) found during testing.

USER STORIES

User Story 1 - In order to store and use my pictures through the

<https://assessment.onrender.com/api/image> API service: As an Anonymous user, I want to attach a picture to the Service and I want to have a **permanent** link to this picture, Otherwise, I want to be rejected and informed if the file is not a picture.

User Story 2 - In order to save my time from uploading my pictures multiple times via

<https://assessment.onrender.com/api/zip> API service: As an Anonymous user, I want to attach a zip file containing multiple images and I want each of these uploaded images to have a permanent link.

DOING PROCESS - AS PROCESS OF BDD

1. Define the behavior of the API

User story 1:

Scenario 1: I have a permanent link when attach a picture to the Service

Given I make 'POST' request to "/api/image" attached a picture with extension "<extension>"

When I execute the '/api/image' API and receive the response

Then I expect response should have status 200

And the response have a permanent link to this picture in the correct format

And the response should have a json schema '{"image": "string"}'

And the image link in the response is the valid UUID v4

All extensions of image reference here:

https://developer.mozilla.org/en-US/docs/Web/Media/Formats/Image_types

They will be:

- Common: .png, jpeg, .jpg, .gif, .svg, .webp
- Uncommon (because not of most browser supports them): .bmp, .ico, .tif

Scenario 2: I have a permanent link when attach a large-size picture to the Service

Given I make a "POST" request to "/api/image/" attached a large-size picture

When I execute the '/api/image' API and receive the response

Then I expect response should have status 200

And the response have a permanent link to this picture

And the response should have a json schema ""{"image": string}""

And the image link in the response is the valid UUID v4

Scenario 3: I can not attach a file which is not an image to the Service

Given I make a 'POST' request to "/api/image" attached a <"file"> is not a picture

When I execute the '/api/image' API and receive the response

Then I expect response should have status 403

And the response body should have a json schema ""{"err": string}""

And the error in response message should be "File isn' an image"

Common file: .docx, .csv, .xml, .json, .pdf.

Scenario 4: The Service will return error when I request without attach any picture

Given I make a "<Method>" request to "/api/image" without attach any image

When I execute the '/api/image' API and receive the response

Then I expect response should have status 400

And the response should contain "Error"

Scenario 5: I will receive error when uploading picture to the incorrect endpoint

Given I make a "<Method>" request to "/api/image/invalid-endpoint" attached a valid picture

When I execute the '/api/image/invalid-endpoint' API and receive the response

Then I expect response should have status 404

And the response should contains "Error"

Scenario 6: I will receive error when I trying to upload multiple pictures at once

Given I make a "POST" request to "/api/image" attached valid multiple pictures

When I execute the '/api/image' API and receive the response

Then I expect response should have status 400

And the response should contains "Error"

User story 2:

Scenario 1: I get a list of permanent links when attach a Zip file containing multiple same image file type

Given I make a "POST" request to "/api/zip" contains multiple image files with same type

When I execute the '/api/zip' API and receive the response

Then I expect response should have status 200

And the all links is in the correct format

And the response should have a json schema '{"image": "string[]"}'

And all links in response are in the correct format link

And total links in response equal with total image files in Zip file

And all images ID in the response are valid UUID v4

Scenario 2: I get a list of permanent links when attach a Zip file containing multiple image files with different types

Given I make a 'POST' request to '/api/zip' with a Zip file contains multiple image files with different types

When I execute the '/api/zip' API and receive the response

Then I expect response should have status 200

And the response should have a json schema '{"image": "string[]"}'

And all links in response are in the correct format link

And total links in response equal with total image files in Zip file

And all images ID in the response are valid UUID 'v4'

Scenario 3: I get a list of permanent links when attach a Zip file containing a lot of image files

Given I make a 'POST' request to '/api/zip' with a Zip file contains 100 image files

When I execute the '/api/zip' API and receive the response

Then I expect response should have status 200

And the response should have a json schema '{"image": "string[]"}'

And all links in response are in the correct format link

And total links in response equal with total image files in Zip file

And all images ID in the response are valid UUID 'v4'

Scenario 4: I get a list of permanent links when attach a Zip file containing file that is not in image format

Given I make a 'POST' request to '/api/zip' with a Zip file contains file that is not in image format

When I execute the '/api/zip' API and receive the response

Then I expect response should have status 200

And the response should have a json schema '{"image": "string[]"}'

And all links in response are in the correct format link

And all links in response are image type

And total links in response less than total image files in Zip file

And all images ID in the response are valid UUID 'v4'

Scenario 5: I receive the error when attach a Zip file that all files inside are not image

Given I make a 'POST' request to '/api/zip' with a Zip file that all files inside are not image

When I execute the '/api/zip' API and receive the response

Then I expect response should have status 400

And the response should have a json schema '{"err": "string"}'

And the error in response message should be "no image found in zip file"

Scenario 6: I receive the error when attach a Zip file that have nothing inside

Given I make a 'POST' request to '/api/zip' with a Zip file that all files inside are not image

When I execute the '/api/zip' API and receive the response

Then I expect response should have status 400

And the response should have a json schema '{"err": "string"}'

And the error in response message should be "no image found in zip file"

Scenario 7: I receive the error when attach a file that is not a zip file

Given I make a 'POST' request to '/api/zip' with a file that is not a zip file

When I execute the '/api/zip' API and receive the response

Then I expect response should have status 403

And the response should have a json schema '{"err": "string"}'

And the error in response message should be "File isn' a zip"

Scenario 8: I receive the error when request to Service without attach any zip file

Given I make a 'POST' request to '/api/zip' without attach any zip file

When I execute the '/api/zip' API and receive the response

Then I expect response should have status 400

And the response should contains 'Error'

Scenario 9: I receive the error when upload multiple zip files

Given I make a 'POST' request to '/api/zip' with 2 zip files

When I execute the '/api/zip' API and receive the response

Then I expect response should have status 400

And the response should contains 'Error'

Scenario 10: I receive the error when upload the valid zip file to wrong end point

Given I make a 'POST' request to '/api/zip/invalid-endpoint' with a valid zip file

When I execute the '/api/zip/invalid-endpoint' API and receive the response

Then I expect response should have status 404

And the response should contains 'Error'

2. Execute Manual testing

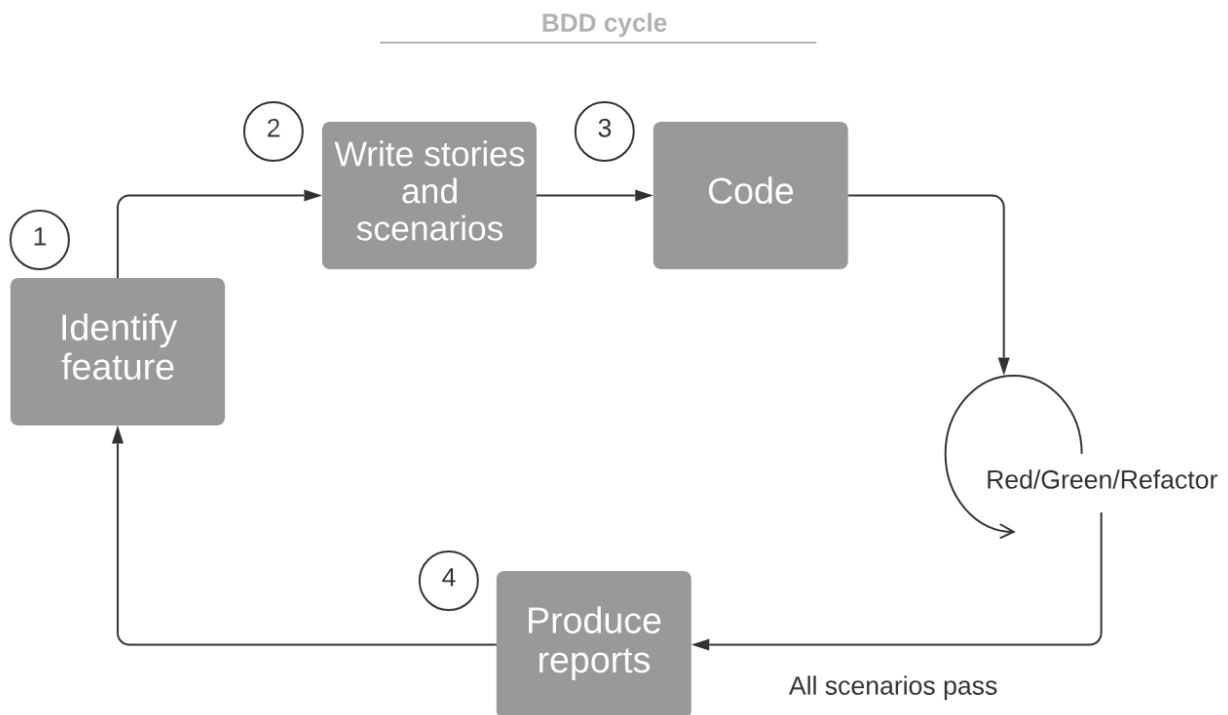
As QA, we need to execute the Manual testing based on these defined scenarios. After testing, we log the bug for developers.

3. Write Automation script

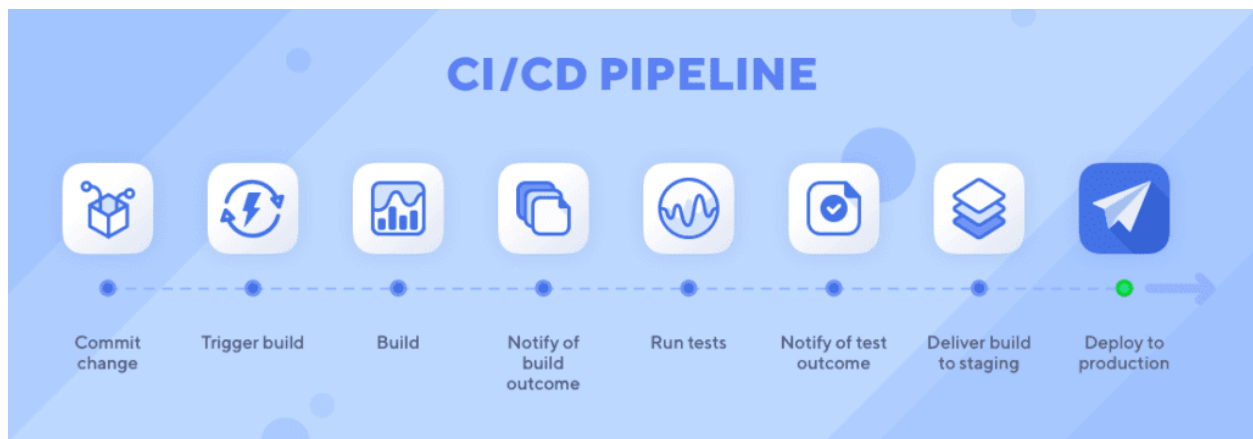
After Manual testing, while developers fixing bug or implement new feature, we write automation script to automate these scenarios.

4. Refactor / Reports automation script

After init the codebase for the automation script, we need to refactor it to achieve most re-using function as it can to lightweight test suite as long as reduce speed execution time.



EXTRA PROCESS - CI/CD (Continuous Integration / Continuous Delivery)



For some reason, the report of automation on local is not enough truthy, so we need to run it on the remote machine, along to integrate with the development phase.

The common process is when the developer publishes a build, the automation test will test on dev environment then loop throughout others like **stagings**, **pre-production** or **production**. After that, we can receive the **test report** in the place where it published or can notify via Email or Slack, or any chat channel.

In the current assignment, I integrated CI/CD via Github Action:
<https://github.com/SimoneTrinh/HandshakesByDC-QA-Assignment/actions>

After each time the code is merged, it will triggered and run the automation test automatically and export the report. Also, it will send an email to notify the tester about result like this:



[SimoneTrinh/HandshakesByDC-QA-Assignment] Jest Test and Publish HTML Report workflow run, Attempt #2



Jest Test and Publish HTML Report, Attempt #2: Some jobs were not successful

[View workflow run](#)



Jest Test and Publish HTML Report, Attempt #2 / build
Failed in 1 minute and 5 seconds



Jest Test and Publish HTML Report, Attempt #2 /
publishTestResults
Succeeded in 3 seconds

You are receiving this because you are subscribed to this thread.
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