

Test Report and Coverage Document

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Test coverage and analysis report:

Objective: To validate the functionality of the /users,/posts and /comments endpoints with focus on

- > Searching for a user by username.
- > Fetching posts and comments associated with the user.
- > Validating the format of emails in comments

Executive Summary:

S.NO	Test description	Status	Remarks
1	Searching for the user "Delphine"	Passed	User available
2	Fetch posts for the user "Delphine"	Passed	Posts available
3	Validate comments for posts	Passed	Comments available
4	Validate email formats	Failed	There are emails in invalid format: Invalid email addresses found: Lucio@gladys.tv Shemar@ewell.name Jackeline@eva.tv Marianna_Wilkinson@rupert.io Marcia@name.biz
5	Searching for the user "Elwyn.Skiles"	Passed	User available
6	Fetch posts for the user "Elwyn.Skiles"	Passed	Posts available
7	Validate comments for posts	Passed	Comments available
8	Validate email formats	Failed	There are emails in invalid format: Invalid email addresses found: Buford@shaylee.biz Maria@laurel.name Jaeden.Towne@arlene.tv Ethelyn.Schneider@emelia.co.uk Georgianna@florence.io
9	Searching for the user "Natarajan"	Failed	User available
10	Searching for the user "NULL"	Failed	Posts available

Defects:

S.NO	Defect description	Remarks
1	Invalid email format in comment(eg.,Maria@laurel.name)	Email validation bug

Test Scenarios and Coverage :

- > Search for Username "Delphine"
 - Search for a valid username ("Delphine").
 - **Expected Result:** User details for "Delphine" should be returned with status code 200.
 - Search for an invalid username (e.g., "NotExist").
 - **Expected Result:** API returns an empty array or appropriate error message, with status code 404 or 200 (with empty data).
- > Fetch Posts for User "Delphine"
 - Fetch posts for "Delphine" if posts are available.
 - **Expected Result:** List of posts should be returned with status code 200.
- > Fetch Comments for Each Post
 - Fetch comments for a post.
 - **Expected Result:** A list of comments should be returned with status code 200.
- > Validate Email Format in Comments
 - Validate valid email format in comments (e.g., test@gmail.com).
 - **Expected Result:** Ensure all emails in the comments section conform to a valid email format.

Test Data:




- **Valid Username:** Delphine, Elwyn.Skiles
- **Invalid Username:** Natarajan, NULL

Test execution report:

Cucumber execution report :

**Failures in the reports are intentionally induced and it is scenario and test data based.*

Overall execution summary:

2 FAILED		3 PASSED	
<div>60% passed</div> <div>5 executed</div>	<div>22 seconds ago</div> <div>last run</div>	<div>4.21 seconds</div> <div>duration</div>	
<div></div> <div>Mac OS X</div>	<div></div> <div>Java HotSpot(TM) 64-Bit Server VM 11.0.16+11-LTS-199</div>	<div></div> <div>cucumber-jvm 7.20.1</div>	
<div><input type="text" value="Search with text or @tags"/></div> <div>You can search with plain text or Cucumber Tag Expressions to filter the output</div>			
<div><div>▼</div><div><input checked="" type="checkbox"/> failed <input checked="" type="checkbox"/> passed</div></div>			

Scenario based execution summary:

file:///Users/natarajankanakasabapathy/RABIT/SurepayAssessment/src/test/resources/features/Jsonplaceholder.feature

@SurepayTesting

Feature: Verification of user and respective posts

As an API consumer
I want to retrieve posts written by specific users
So that I can analyze their content

Background:

- ✓ **Given** the JSONPlaceholder API is available

@FunctionalTesting @IntegrationTesting

Scenario Outline: Verify posts written by Delphine

- ✓ **When** I search for user with username "<Username>"
- ✗ **Then** the user should be found in the system
- ⦿ **And** validate the emailID of the user "<email>"
- ⦿ **When** I retrieve all posts written by the user
- ⦿ **Then** there should be posts available
- ⦿ **And** each post should have valid title and body
- ⦿ **And** retrieve comments for each post
- ⦿ **Then** validate email in each comment section

Examples:

	Username	email
✓	Delphine	Chaim_McDermott@dana.io
✓	Elwyn.Skiles	Telly.Hoeger@billy.biz
✗	Natarajan	Rey.Padberg@karina.biz
✗	NULL	Null@test.com

@UsersPostsTesting @SmokeTesting

Scenario: Validate post structure

- ✓ **When** I search for user with username "Delphine"
- ✓ **And** I retrieve all posts written by the user
- ✓ **Then** each post should have required fields
- ✓ **And** no. of posts should be greater than 0

CIRCLE CI execution report :

**Failures in the reports are intentionally induced and it is scenario and test data based.*

circleci

OPERATIONAL

Stuck? Ask questions

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Organization Settings

Plan

Project	Status	Workflow	Trigger Event	Start	Duration	Actions
SurePay 13	Failed	test-workflow	main dcdc075 Merge pull request #2 from nat-github/feature/development Feature/development	31m ago	43s	
SurePay 12	Failed	test-workflow	feature/development bb47859 Added new test data for negative tests in feature file. Content addedd for README.md.Modified pojo for Comments class	35m ago	46s	
SurePay 11	Failed	test-workflow	feature/development 15d1e8e Added logic for validation of email contents in Comments section	1h ago	47s	
SurePay 10	Success	test-workflow	feature/development 09288c4 Commented out failure scenario for time being	4h ago	42s	
SurePay 9	Failed	test-workflow	feature/development 916f59b Added valid comments where its appropriate	4h ago	55s	
SurePay 8	Success	test-workflow	feature/development 0635167 Added wiremock functionality	5h ago	24s	
SurePay 7	Success	test-workflow	main 27fc343 Update config.yml Changed store test results to store artifacts as suggested by CircleCI docs	5h ago	44s	
SurePay 6	Success	test-workflow	main b3cfe32 Update config.yml	5h ago	23s	
SurePay 5	Success	test-workflow	main 425b3fd Merge pull request #1 from nat-github/feature/development Feature/development	5h ago	40s	
SurePay 4	Success	test-workflow	feature/development 1aaa982 CircleCI config setup	5h ago	40s	

build-and-test

Failed

Rerun

Duration / Finished

Queued

Executor / Resource Class

Branch

Commit

Author & Message

41s / 36m ago

0s

Docker / Large

main

dcdc075

Merge pull request #2 from nat-github/feature/development Feature/development

You're using a deprecated Docker convenience image. Upgrade to a next-gen Docker convenience image.

STEPS

TESTS

TIMING

ARTIFACTS

RESOURCES

Accessible step output

Spin up environment

Preparing environment variables

Checkout code

Set up Maven Dependencies

Run API Tests

Uploading artifacts

Uploading artifacts

18s

0s

0s

9s

12s

0s

0s

All Pipelines > SurePay > main > test-workflow > build-and-test (6)

build-and-test

Success

Rerun

Duration / Finished

Queued

Executor / Resource Class

Branch

Commit

Author & Message

42s / 5h ago

0s

Docker / Large

main

27fc343

Update config.yml Changed store test results to store artifacts as suggested by CircleCI docs

You're using a deprecated Docker convenience image. Upgrade to a next-gen Docker convenience image.

STEPS

TESTS

TIMING

ARTIFACTS

RESOURCES

Accessible step output

Spin up environment

25s

Preparing environment variables

0s

Checkout code

0s

Set up Maven Dependencies

6s

Run API Tests

9s

Uploading artifacts

0s

Uploading artifacts

0s

Conclusion:

This test coverage and execution report outlines the API testing approach, test cases, and scenarios to ensure the correct functionality and robustness of the jsonplaceholder.typicode.com API, specifically for fetching the user "Delphine" and validating the comments' email format