API Technical Test

#### Functional Testing Report

Version 0.1

28/04/2021

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# Document Control

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| --- | --- | --- | --- | --- |
| Date | **Author** | **Role** | **Version** | **Comments** |
| 28/04/2021 | Devanshi | Test Engineer | 0.1 | Initial draft version |

# End of Test Summary

The purpose of this document is to summarize the results and any outstanding deliverables of the API testing.

This document includes the following:

* In scope requirements
* Test execution results
* Defects details

# Test Overview:

A RESTful API is built to implement CRUD operations for blog categories data with following endpoints:

* GET /blog/categories/ - Returns list of blog categories
* POST /blog/categories/ - Creates a new blog category
* DELETE /blog/categories/{id} - Deletes blog category
* GET /blog/categories/{id} - Returns a category with a list of posts
* PUT /blog/categories/{id} - Updates a blog category

# In Scope Summary

Following test scenarios were in scope and tested as a part of this technical test:

|  |  |  |
| --- | --- | --- |
| **Test Case** | **API Method** | **Test Objective** |
| TC1 | GET (Categories) | To verify that the API retrieves list of blog categories available in back-end system |
| TC2 | GET (Posts) | To verify that API returns list of posts available in a particular blog category |
| TC3 | POST | To verify that a new blog category is created in the backend system |
| TC4 | PUT | To verify that an already existing blog category name is updated with the new value. |
| TC5 | DELETE | To verify that the blog category is deleted from the backend system |

# Recommendations

I have completed the testing for API and following are few recommendations:

* GET Operation- should also return the total no. of blog categories available.
* GET Operation- should also return the total no. of posts available in a particular blog category
* GET Operation- A generic error message could be displayed in the response body for all invalid scenarios.
* POST Operation- A generic error message stating value can’t be null could be displayed in the response body when null values are supplied in the payload
* PUT Operation- A generic error message could be displayed in the response body when invalid values are supplied to update category name
* POST Operation- It is recommended to define the maximum length for ID and category name field while creating new blog categories.
* Category name should not accept null values

# Deviations & Approach

There are no deviations from the planned scope of testing.

# Execution Results

Please see below summary of testing timelines and execution results.

# Testing Schedule

|  |  |  |
| --- | --- | --- |
| **Test Phase** | **Start Date** | **End Date** |
| Test Design | 26-Apr | 28-Apr |
| Test Execution | 26-Apr | 28-Apr |
| Test Automation | 26-Apr | 28-Apr |
| Reports | 27-Apr | 28-Apr |

# Execution Details

Following is the summary of total test cases executed in testing:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Operation** | **Total Test Cases** | **Passed** | **Failed** | **De-scoped** | **Deferred** |
| GET (Category) | 1 | 1 | 0 | 0 | 0 |
| GET (Posts) | 4 | 4 | 0 | 0 | 0 |
| POST | 8 | 4 | 4 | 0 | 0 |
| DELETE | 5 | 4 | 0 | 0 | 1 |
| PUT | 5 | 3 | 2 | 0 | 0 |
| **Total** | **23** | **16** | **6** | **0** | **1** |

# Defects Results

Total 6 defects were identified and they are currently open. Please refer bug reports for detailed information

# Defects by Severity

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Defect Status** | **Sev1- major** | **Sev 2-medium** | **Sev 3-low** | **Total** |
| Open | 1 | 2 | 3 | 6 |
| Closed | 0 | 0 | 0 | 0 |
| Blocked | 0 | 0 | 0 | 0 |
| Deferred | 0 | 0 | 0 | 0 |
| **Total** | **1** | **2** | **3** | **6** |

# Defects By Cause

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Defect Cause** | **Sev1- major** | **Sev 2-medium** | **Sev 3-low** | **Total** |
| Build | 0 | 0 | 0 | 0 |
| Design | 0 | 0 | 0 | 0 |
| Requirements | 0 | 0 | 0 | 0 |
| Not known | 1 | 2 | 3 | 6 |
| **Total** | **1** | **2** | **3** | **6** |

# Outstanding Defects

All the 6 defects are outstanding and not fixed or clarified yet.

# Risks

No open risks as such.

# Closedown Activities

All the open defects should be closed and retested to close the formal testing.

# References

Requirement and project were shared by recruitment team.

|  |  |  |
| --- | --- | --- |
| **Document name** | **Source** | **Date** |
| API Project | Recruitment team | 23-Apr |

# Glossary

|  |  |
| --- | --- |
| **Term/Acronym** | **Definition** |
| API | Application Programming Interface |
| SDLC | Software Development Lifecycle |
| TC | Test Case |
| CRUD | Create, Retrieve, Update & Delete |
| URL | Uniform Resource Locator |

# Distribution List

|  |  |  |  |
| --- | --- | --- | --- |
| **Date** | **Approver** | **Role** | **Version** |
| 28-Apr | Recruitment team | Recruiter | V0.1 |