**CRUD OPERATION IN TRELLO BOARD**

**TEST PLAN**

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1. **Introduction**

Trello is a collaboration tool that organizes the projects into boards. In one glance, Trello tells you what's being worked on, who's working on what, and where something is in a process.

Testing approach on the Trello is to identify how CRUD operations works for Web Application/Backend API calls. This document explains the testing scope and features covered for the testing.

1. **Scope for Testing**

Main goals of testing for current project to verify:

* Interaction of CRUD operation in Trello website (<https://trello.com/>) through the UI & API
* Web Browser alone considered for the testing.

1. **Coverage of Scenario**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| S No | Scenario Name | Scenario Description | UI/API | Scope |
| **Create Operation** | | | | |
| 1 | Create Board in Trello | To create a board on the Trello to track the activity of the project.  In API - Status code 200 (Successful creation of board) | UI/API | Positive |
| 2 | Create List in Trello | To create a list on the Trello only if the board is already created.  In API - Status code 200 (Successful creation of List) | UI/API | Positive |
| 3 | Create a task in Trello | To create a task on the Trello only if the board & list is already created.  In API - Status code 200 (Successful creation of task) | UI/API | Positive |
| 4 | Create an empty Board name or List Name | To check whether the empty Board/Card/List throws the exception with 404. The resource not found | API | Negative |
| 5 | Create a Board name or List Name with invalid Key or Token | To check whether the invalid Key or Token while creating Board/Card/List throws the exception with 401. The unauthorized access | API | Negative |
| **Retrieve Operation** | | | | |
| 6 | Retrieve a Board/Card in Trello | To retrieve a board/card which was already created in Trello  In API - Status code is 200 (Successful retrieval of the Board/Card) | UI/API | Positive |
| 7 | Retrieve a non existing Board/Card in Trello | To retrieve a non existing board/card which was already created in Trello   In API - Status code 400 (Unsuccessful retrieval) | UI/API | Negative |
| 8 | Retrieve empty Board name or Card Name | To check whether the empty Board/Card throws the exception with 404. The resource not found | API | Negative |
| 9 | Retrieve a Board name/Card Name with invalid Key or Token | To check whether the invalid Key or Token while retrieving the Board/Card throws the exception with 401. The unauthorized access | API | Negative |
| **Update Operation** | | | | |
| 10 | Update a Card/List in Trello | To update a Card/List which was already created in Trello  In API - Status code is 200 (Successful retrieval of the Board/Card) | UI/API | Positive |
| 11 | Update a Board in Trello | To update a Board which was already created in Trello  In API - Status code is 200 (Successful retrieval of the Board/Card) | API | Positive |
| 12 | Update empty Board name or Card Name | To check whether the empty Board/Card throws the exception with 404. The resource not found | API | Negative |
| 13 | Update a Board name/Card Name with invalid Key or Token | To check whether the invalid Key or Token while retrieving the Board/Card throws the exception with 401. The unauthorized access | API | Negative |
| **Delete Operation** | | | | |
| 14 | Delete a Board/Card in Trello | To delete a board/card which was already created in Trello  In API - Status code is 200 (Successful delete of the Board/Card) | UI/API | Positive |
| 15 | Delete a non existing Board/Card in Trello | To delete a non existing board/card which was already created in Trello   In API - Status code 400 (Unsuccessful delete) | UI/API | Negative |
| 16 | Delete empty Board name or Card Name | To check whether the empty Board/Card throws the exception with 404. The resource not found | API | Negative |
| 17 | Delete a Board name/Card Name with invalid Key or Token | To check whether the invalid Key or Token while deleting the Board/Card throws the exception with 401. The unauthorized access | API | Negative |

1. **Out of Scope for Testing**

* Mobile Browser testing.
* Mobile App testing.
* Cross browser testing.
* Non-CRUD Operation.

1. **Supported Features in Trello**

Functional UI and API features of existing project should be covered during testing activities. This include:

* Registration
* Login
* Token generation
* CRUD operations

1. **Non Supported Features in Trello**

Any third-party integrations with Trello

1. **Testing types**

**7.1** **Functional testing**

Functional testing is performed using the functional specification provided by the client and verifies the system against the functional requirements.

**7.2** **Regression Testing**

Regression Testing is done to make sure that new code changes should not have side effects on the existing functionalities. It ensures that the old code still works once the latest code changes are done.

**7.3 Non-Functional Testing**

**Performance Test** will be performedseparately, to ensure the performance of the Web application.

**Load Test** to perform the stress level on the Web Application/Backend Server.

**Security Test** to perform the Vulnerability check on the Web Application.

**Penetration Test**, also known as a pen test, is a simulated cyber attack against your computer system to check for exploitable vulnerabilities. In the context of web application security, penetration testing is commonly used to augment a web application firewall (WAF)

**7.4 Automation testing**

Automated functional testing covers of 100% scenario.

**7.4.1** **Feature of Automation Test: -**

* Reusability of the Automated scenario across multiple release.
* Regression suite can be run in CI/CD via On-premises or in Cloud platform without any manual intervention.
* Cross Browser testing is possible using the Selenium Grid feature to run the script in parallel.
* Build stability can be identified using the Smoke Test.

**7.4.2** **Framework & Tools covered: -**

* BDD Framework
* Selenium WebDriver Manager.
* Rest Assured for Backend calls.
* Cucumber Extend reports with 3 different dashboard
  + Selenix-Logger
  + Selenix-Spark
  + HTML Report

1. **Deliverables**

The following are the test deliverables for this project:

* Test plan document
* Functional test case for Web/API include of Positive/Negative Scenario
* BDD Framework for automation testing
* Cucumber Extended Test Result Report