

API Testing

7 API Testing Best Practices

Pick the right API tool

- POSTMan
- Rest Assured
- Katalon Studio
- Cloud Tools
 - Runscope
 - APIGEE

Test for Failure

- Make sure you understand how your API will fail.
- Make sure you add hard validation or Checks like JSON Schema or XML Schema validations

Exploring the APIs

- Play around with the Crud and Positive & Negative cases

Don't ignore Security Failures

<https://github.com/shieldfy/API-Security-Checklist>

How often should you perform API tests?

CONTINUOUSLY	2-4 TIMES DAILY	DAILY OR 2-3 TIMES WEEKLY	WEEKLY
Access security Authenticate the connection to the endpoint Endpoint security Detect a valid or invalid connection Data security Authenticate to share data with a connection	Response validation Do you get the data returned in the response you're expecting? Are you getting the data in the format you're expecting? Does the response match the request? Response code validation Verify the response codes returned are valid	Data validation Ensure the data is valid, accurate and safe to consume File validation Ensure files come from a valid source and are safe to consume	Error messaging and failover handling What happens when an error occurs, or a bad connection is attempted?

SOURCE: AMY BUCHHEIT; ICON: ASTRACE/SHUTTY IMAGES

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Check

Discuss about the Stress & Performance Test

- What willl happen if 100 Req come per second for 1 hour?

Don't ignore Monitoring the APIs + Location Based Testing

Test with Max Inputs

- Postive
- Negative
- Nulls

Test cases for API Testing

- Validate the keys with the Min. and Max range of APIs (e.g maximum and minimum length)
- Keys verification. If we have JSON, XML APIs we should verify it's that all the keys are coming.
- Have a test case to do XML, JSON Schema validation.
- Verify the Parse the Response data
- Verify the JSON Schema validation, Verify the Field Type,Verify the Mandatory Fields
- Valid Response headers & Negative Testcases response
- Verify that how the APIs error codes handled.
- Verify the response HTTP status code.
- Valid Response payload
- Chaining Request verification.
- Verification of APIs with Data parameters.
- End to End CRUD flows
- Database Integrity Test Cases
- File Upload Testcases

Test Cases for API Testing

Read this - <https://club.ministryoftesting.com/t/30-days-of-api-testing-day-24-share-the-best-api-bug-you-ve-found/20365>

Plan your API Testing

- Important to create Test Plan
- Test cases
- Test Strategies
- 30 Days of API Testing — https://www.youtube.com/playlist?list=PL8VbCbavWfeG_4bXrelf59CJc7KkKRf5o