

# Writing a Test with API Fortress

API Fortress is a continuous testing platform for APIs.

One of the key benefits of the platform is the ability to create tests in whichever way works best for you and your team. This enables unparalleled capabilities for developers and testers to work together in a unified and standardized process.

The tests are written in an easy-to-read markup language that we have been developing since 2014. It contains over 70 assertions and components that unlock robust test capabilities quickly, without sacrificing flexibility. You also don't need to learn our markup language if you prefer our GUI interface, or script tests yourself using Groovy.

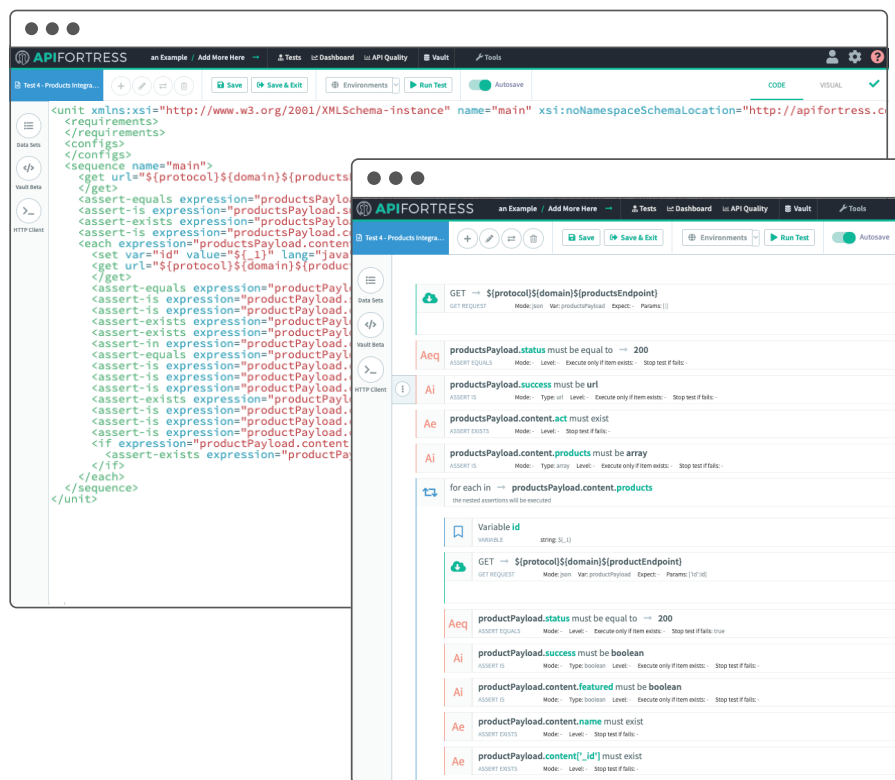
There are multiple ways to get started. First, the platform can generate a draft of the test for you. Or you can choose to write a test from scratch. Then editing of tests can be done in the GUI, your own IDE, or our IDE named Forge. Extensive command-line tools unlock the platform for developers, while the GUI allows for quick test creation with minimal code.

## Test Generation:

Make an API call from our HTTP client, and generate a test. Or generate from a spec file such as Swagger, OpenAPI, and RAML. Then edit those tests in the GUI or an IDE...

## API Fortress Web GUI:

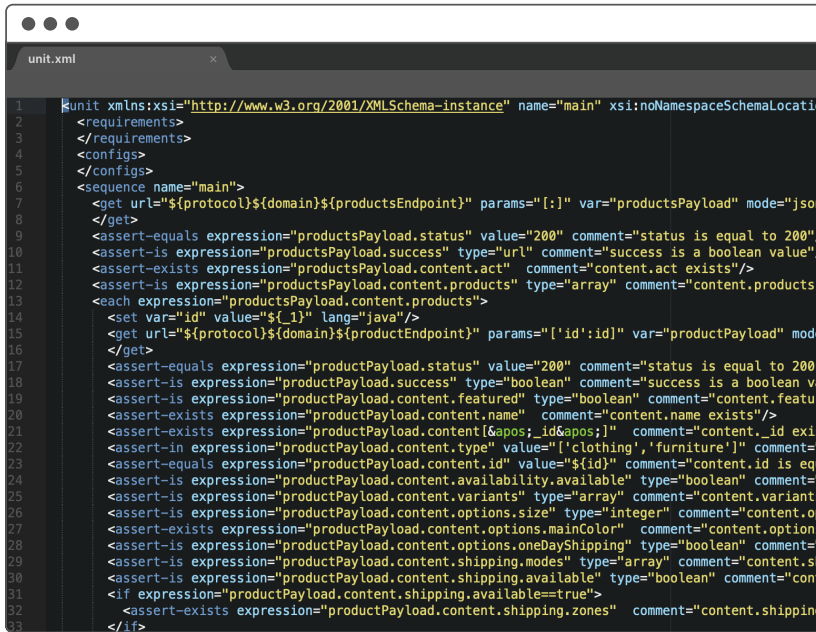
Use our drag-and-drop graphical interface to quickly build functional tests without having to code. The GUI also makes it easier to understand the structure of a response with its clean layout and structure.



## Your Own IDE:

API Fortress tests can be opened and written in any IDE. Unlock the platform outside the GUI with your IDE and our command-line tools.

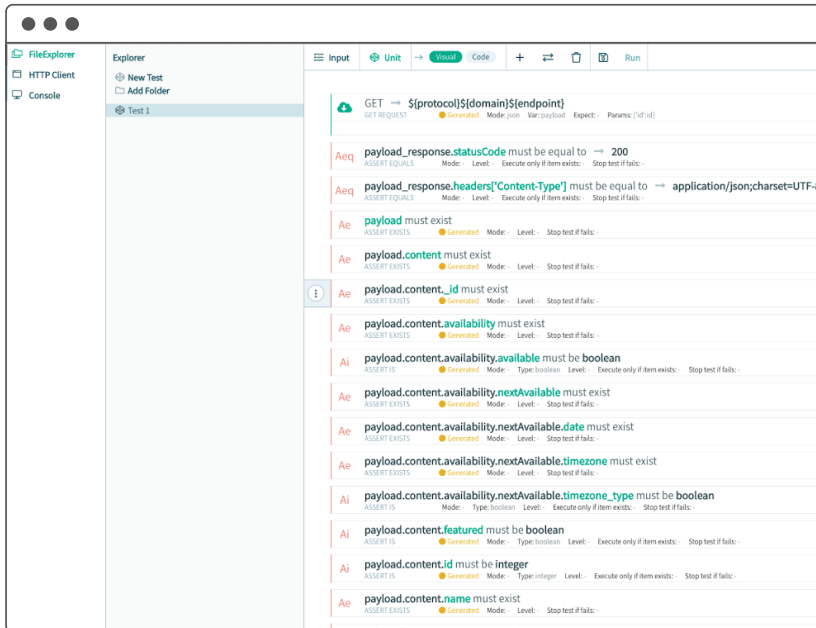
Write API tests the same way that you write any other code. Pull tests, edit in your IDE, and then Commit it to your existing version control system. Any IDE will immediately recognize and validate our markup.



```
unit.xml
1 <unit xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" name="main" xsi:noNamespaceSchemaLocation="
2 <requirements>
3 </requirements>
4 <configs>
5 </configs>
6 <sequence name="main">
7 <get url="{protocol}{domain}{productsEndpoint}" params="[]" var="productsPayload" mode="json">
8 </get>
9 <assert-equals expression="productsPayload.status" value="200" comment="status is equal to 200">
10 </assert-equals>
11 <assert-is expression="productsPayload.success" type="boolean" comment="success is a boolean value">
12 </assert-is>
13 <assert-exists expression="productsPayload.content.act" comment="content.act exists"/>
14 <assert-is expression="productsPayload.content.products" type="array" comment="content.products">
15 </assert-is>
16 <each expression="productsPayload.content.products">
17 <set var="id" value="{_1}" lang="java"/>
18 <get url="{protocol}{domain}{productEndpoint}" params="['id: id']" var="productPayload" mode="json">
19 </get>
20 <assert-equals expression="productPayload.status" value="200" comment="status is equal to 200">
21 </assert-equals>
22 <assert-is expression="productPayload.success" type="boolean" comment="success is a boolean value">
23 </assert-is>
24 <assert-exists expression="productPayload.content.featured" type="boolean" comment="content.featured exists"/>
25 <assert-is expression="productPayload.content.featured" type="boolean" comment="content.featured is a boolean value">
26 </assert-is>
27 <assert-exists expression="productPayload.content.id" comment="content.id exists"/>
28 <assert-is expression="productPayload.content.id" type="integer" comment="content.id is an integer">
29 </assert-is>
30 <assert-equals expression="productPayload.content.id" value="{id}" comment="content.id is equal to {id}">
31 </assert-equals>
32 <assert-is expression="productPayload.content.availability.available" type="boolean" comment="content.availability.available is a boolean value">
33 </assert-is>
34 <assert-exists expression="productPayload.content.options.mainColor" type="boolean" comment="content.options.mainColor exists"/>
35 <assert-is expression="productPayload.content.options.mainColor" type="boolean" comment="content.options.mainColor is a boolean value">
36 </assert-is>
37 <assert-exists expression="productPayload.content.options.oneDayShipping" type="boolean" comment="content.options.oneDayShipping exists"/>
38 <assert-is expression="productPayload.content.options.oneDayShipping" type="boolean" comment="content.options.oneDayShipping is a boolean value">
39 </assert-is>
40 <assert-exists expression="productPayload.content.shipping.modes" type="array" comment="content.shipping.modes exists"/>
41 <assert-is expression="productPayload.content.shipping.modes" type="array" comment="content.shipping.modes is an array">
42 </assert-is>
43 <assert-exists expression="productPayload.content.shipping.available" type="boolean" comment="content.shipping.available exists"/>
44 <assert-is expression="productPayload.content.shipping.available" type="boolean" comment="content.shipping.available is a boolean value">
45 </assert-is>
46 <assert-exists expression="productPayload.content.shipping.zones" comment="content.shipping.zones exists"/>
47 </each>
48 </sequence>
49 </unit>
```

## Forge:

API Fortress' own IDE was specifically built to optimize test generation with drag-and-drop editing, a simplified test view, local execution, and many other capabilities from your local environment.



The screenshot shows the API Fortress Forge IDE interface. On the left, there's a sidebar with 'File Explorer', 'HTTP Client', and 'Console'. The main area displays a test suite for a GET request. The test suite is titled 'GET {protocol}{domain}{endpoint}' and includes a list of assertions. Each assertion is color-coded and has a status icon (e.g., 'Generated', 'Level', 'Stop test if fails'). The assertions include:

- payload\_response.statusCode must be equal to 200
- payload\_response.headers['Content-Type'] must be equal to application/json;charset=UTF-8
- payload must exist
- payload.content must exist
- payload.content.id must exist
- payload.content.availability must exist
- payload.content.availability.available must be boolean
- payload.content.availability.nextAvailable must exist
- payload.content.availability.nextAvailable.date must exist
- payload.content.availability.nextAvailable.timezone must exist
- payload.content.availability.nextAvailable.timezone\_type must be boolean
- payload.content.featured must be boolean
- payload.content.id must be integer
- payload.content.name must exist

## About Us

API Fortress is a continuous testing platform for APIs that helps organizations accelerate releases while decreasing risk. Shift left with our automated platform, and unify developers and test engineers on a standardized testing strategy. Integrate with your existing version control and CI/CD platforms to streamline workflows. Learn how enterprises are transforming their

API programs with continuous testing at [www.apifortress.com](https://www.apifortress.com).