## **API Testing**

Let's learn about the different utilities that let us test the functionality of our website's APIs.

#### WE'LL COVER THE FOLLOWING ^

- Postman
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An Application Programming Interface (API) is a set of protocols, utilities and rules used in the creation of a functional application. Components in the application interact using APIs.

The concept of APIs applies to websites as well (e.g. client-server communication). Therefore, it only makes sense that we should test our APIs to make sure the backend of the web application works correctly. We don't want users sending requests and not receiving a response from our application.

This testing, known as **API testing** is part of backend testing since we are not concerned with the user interface, just the backend jobs. API testing should be done during app creation as well as app maintenance.

As we've discussed before, it is always better to automate tests rather than performing them manually. So without further ado, let's dive into some of the most popular API testing tools.

#### Postman #

Postman is a great app for testing APIs using HTTP requests and getting responses. Designed by Google, Postman provides a simple and easy interface, along with tons of features to help us perform integration testing for applications backend APIs.

We an create complex suites and run them across different environments (local or server etc.). The reason it is helpful is that we can test the server-client functionality on our APIs. Server load testing is essential so that we know how our website behaves under different conditions and Postman allows us to do just that.

For further reading, check out this page.

### SoapUI #

SoapUI is perhaps the most popular backing testing automation tool. It supports load testing by running simulated traffic on our website. Functionality testing is also possible in various environments such as Development, Production, etc.

Another advantage of SoapUI is that is completely open source, so anyone, including us can make new custom features. It is also a useful tool for security assurance, but more on that later.

Learn more about SoapUI here

# Test Your Knowledge #



Next, we'll be introduced to database testing and security.