

REST Web Service from SAP use getpostman to test first

So you want to call a REST Web Service from SAP, but you don't know how to go about it. Well in this situation you first need to make sure it works outside of SAP and more importantly you know what your expecting it to do or what values it will return. There are so many extra layers of complexity within an SAP landscape that getting it working outside of the SAP system will actually speed up the implementation process.

...and before we go any further if you are new to this, maybe you have heard a bit about web services, you may have seen a few working or heard people talking about WSDL's. You may even know what one is..... Well a REST Web Service is a web service without a WSDL!!!

GetPostman.com

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So where do you start, many of you may have heard of services like SOAPUI which also tests REST web services. Most people i know involved in web services use this and like it but i found this far too complicated. I tried 2 free trials and still couldn't get my head around it to make a simple call and see the result. I know for a fact it is a fantastic product as people that use it tell me so but for a beginner it was just too much. Then one day someone told me about getpostman.com and within 5 minutes of installing the windows client I had a web service call working... but not only that it automatically produces example working code including JavaScript and jQuery that I was able to paste directly into a HTML page and get the web

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Rather than talk any more i will provide you with a URL of a REST service and tell you to google getpostman download it and try and get it working. Or you can follow the below very simple steps.

UPDATE: This is quite funny but literally, the day after I published this article Smartbear who own SOAPUI sent an email saying that they had released a web-based API testing tool that will help you quickly and easily test your SOAP and REST API's/Web Services. Not sure if it will be any better than postman but seems to be a step in the right direction <https://swagger.io/>

and then a few weeks later I received another email saying that they had made SOAPUI simpler to use, so it was obviously not just me (well that's what I'm telling myself anyway:-)

Enter your text here...

Getting ready to test your first REST Web Service using postman

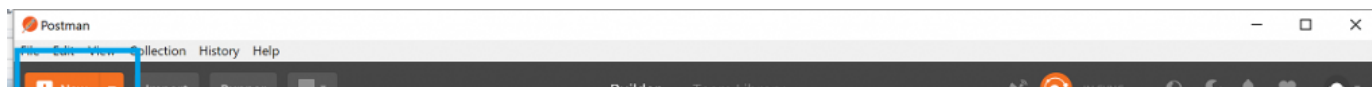
1

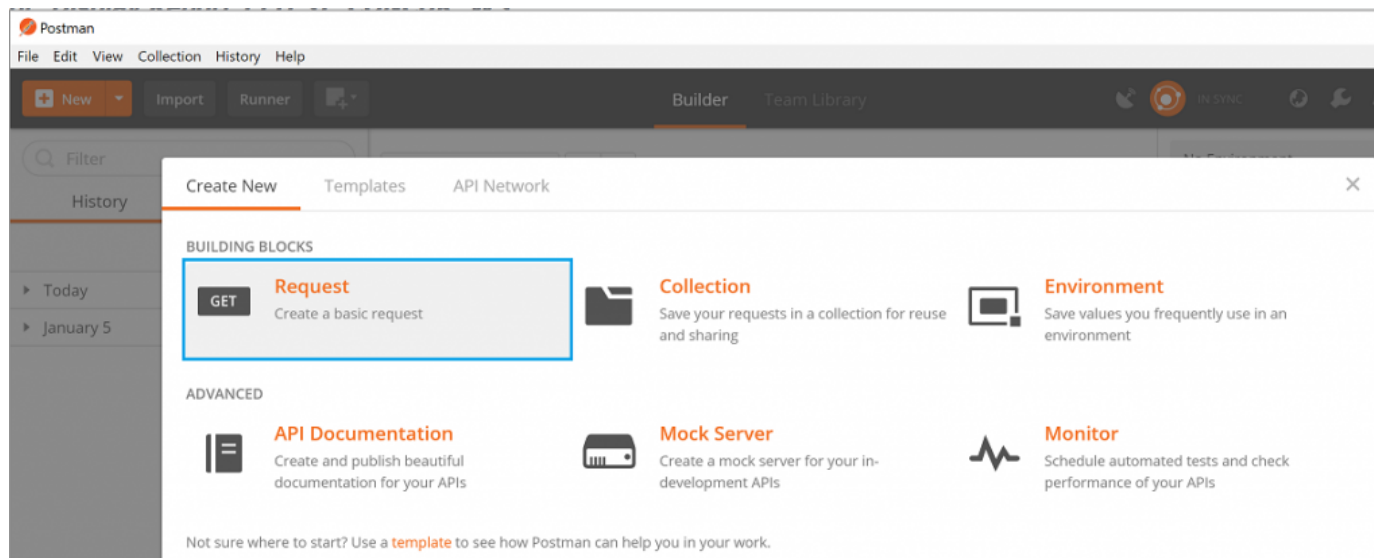
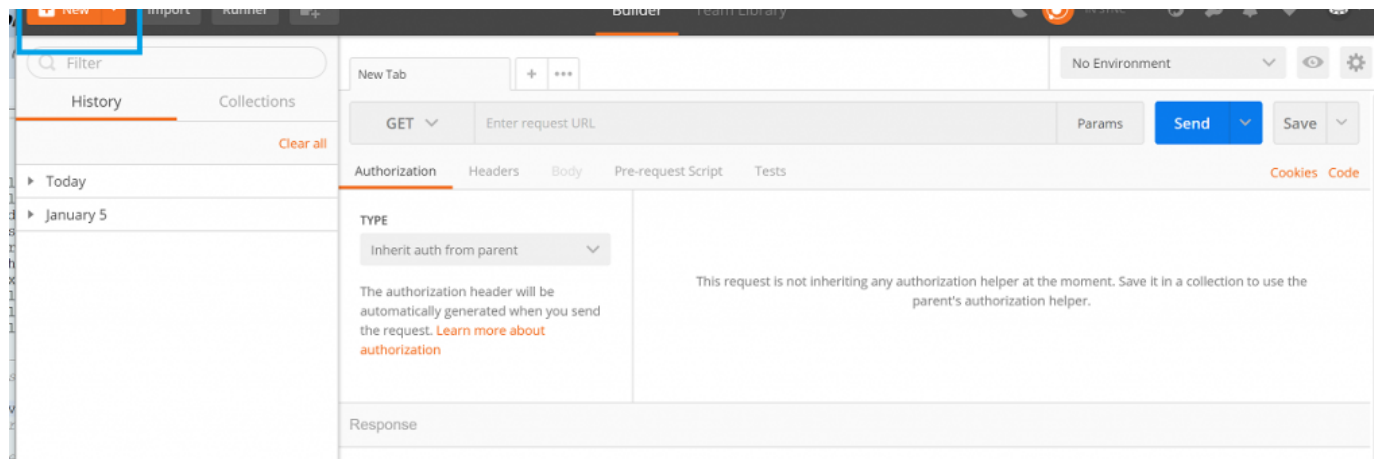
Head over to getpostman.com and download the free client which is available for mac, windows or linux.

2

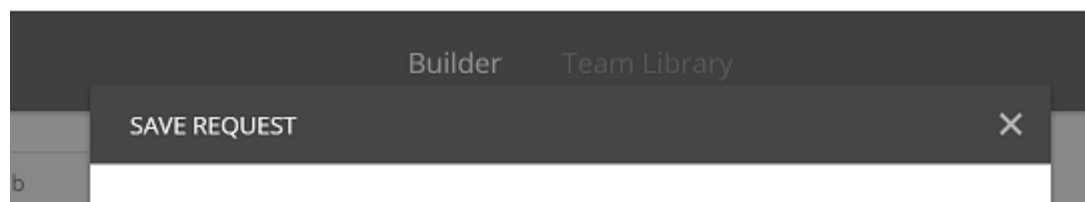
Create New request

Once installed it's time to create your first web service call request, so simply press the NEW button





Enter a request name and create a new collect or choose and existing one



Requests in Postman are saved in collections (a group of requests).

[Learn more about creating collections](#)

Request name

spring

Request description (Optional)

Adding a description makes your docs better

Descriptions support Markdown

Select a collection or folder to save to:

Search for a collection or folder

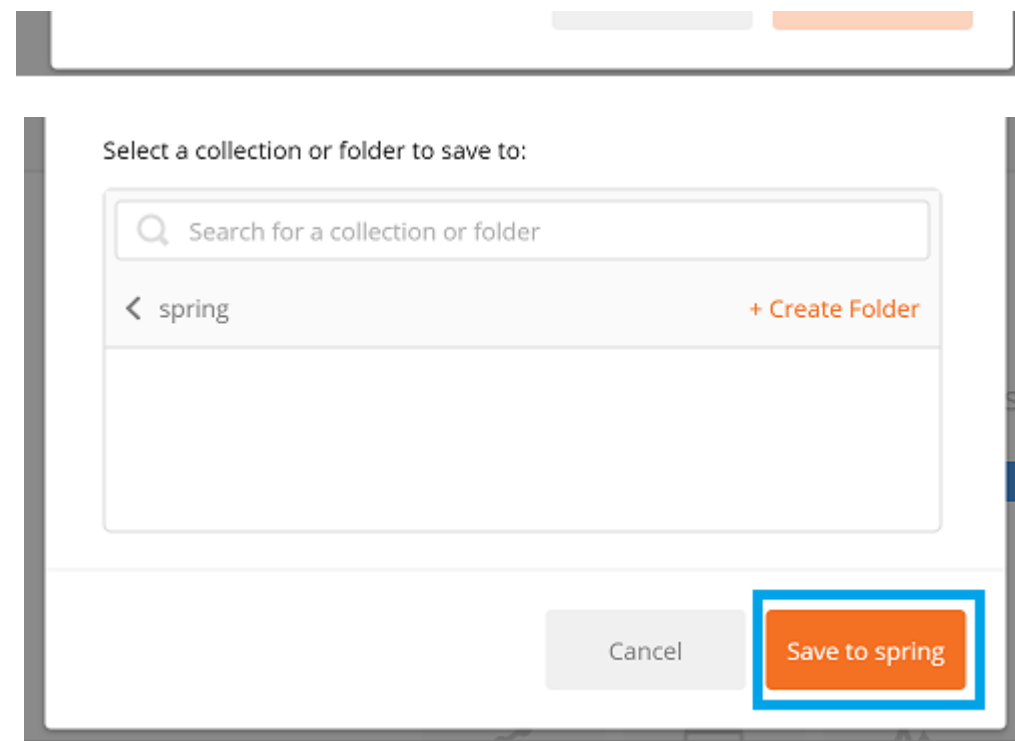
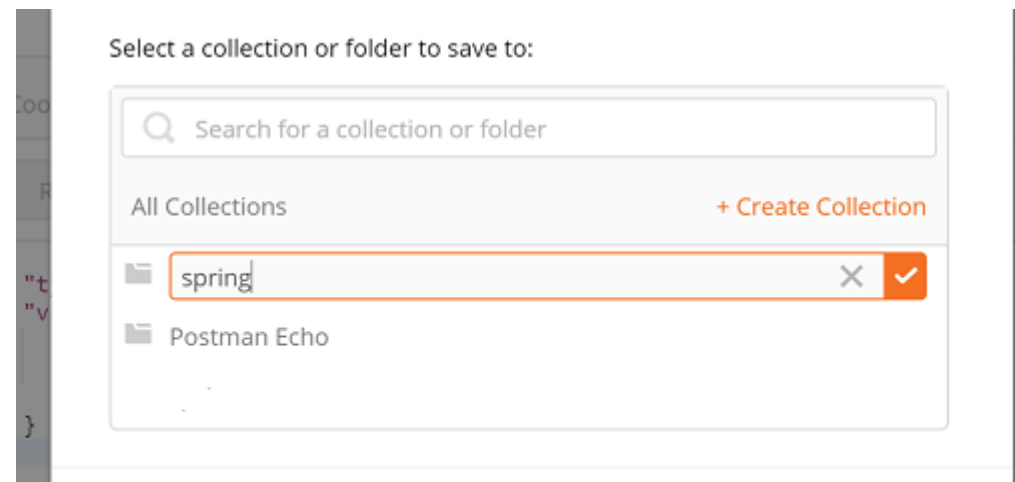
All Collections

+ Create Collection

Postman Echo

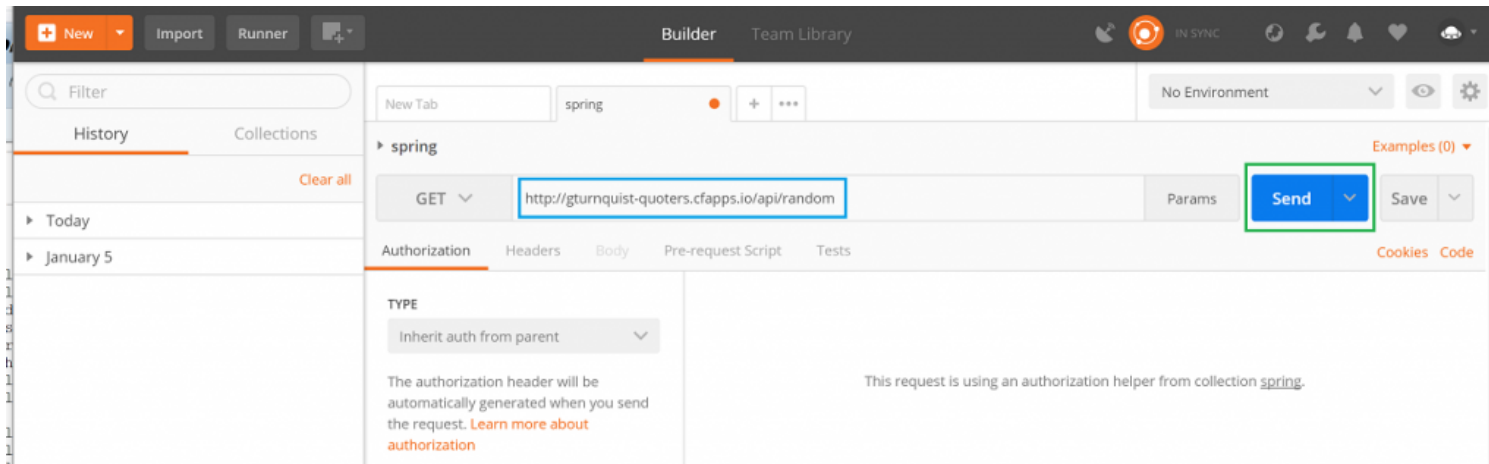
Cancel

Save



Call the REST Web Service

Now the fun stuff simply enter the REST web service URL `http://gturnquist-quoters.cfapps.io/api/random` into the postman and press send.



You will now see the result of the web service call. Also note the Code button....

Builder Team Library

New Tab spring + ... No Environment

spring Examples (0)

GET http://gturnquist-quoters.cfapps.io/api/random Params Send Save

Authorization Headers Body Pre-request Script Tests Cookies Code

TYPE

Inherit auth from parent

authorization

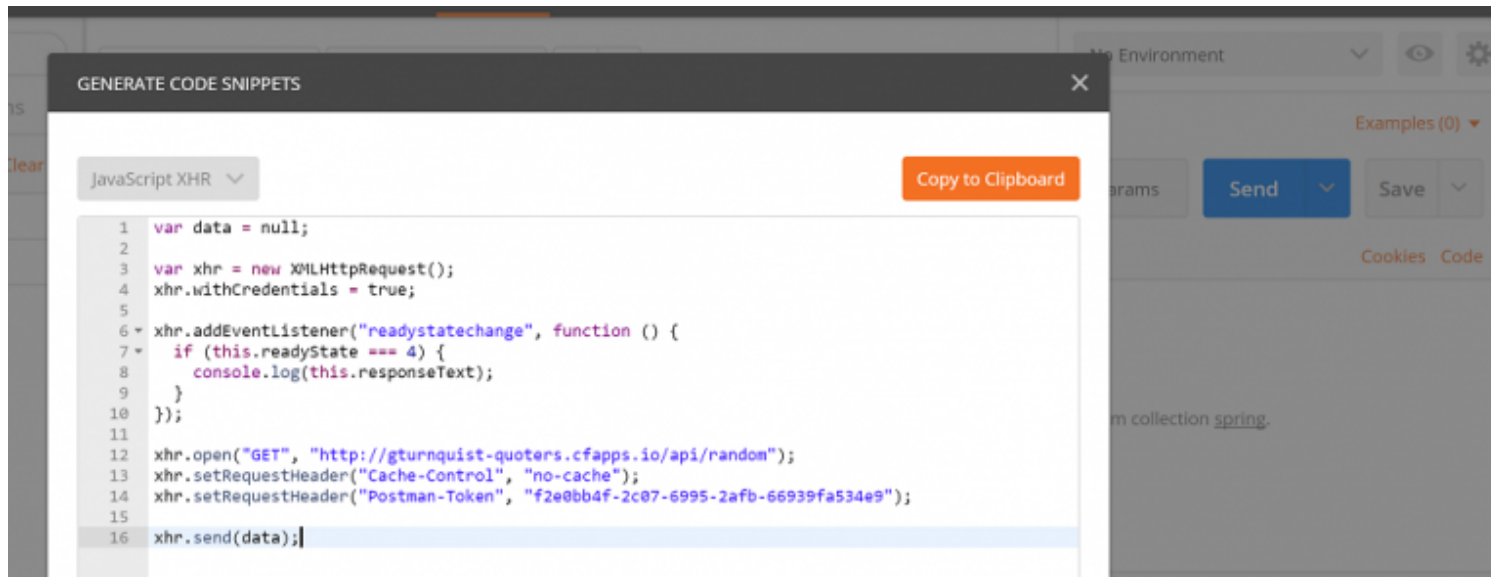
Body Cookies Headers (6) Test Results Status: 200 OK Time: 523 ms Size: 408 B

Pretty Raw Preview JSON Save Response

```
1 {
2   "type": "success",
3   "value": {
4     "id": 3,
5     "quote": "Spring has come quite a ways in addressing developer enjoyment and ease of use since the last time I built an
6       application using it."
7   }
8 }
```


View the Webservice execution code

Now remember that code button from the previous step, click it and you will see the implementation code to call this web service in many different development languages including JavaScript and jQuery/Ajax. If you past this into a HTML document it probably won't work but that's not because the code is wrong but i will get on to this next.



The screenshot shows a web application interface with a 'GENERATE CODE SNIPPETS' dialog box open. The dialog box has a dark header with the title 'GENERATE CODE SNIPPETS' and a close button. Below the header, there is a dropdown menu set to 'JavaScript XHR' and a 'Copy to Clipboard' button. The main area of the dialog displays a JavaScript code snippet for making an XMLHttpRequest. The code is as follows:

```
1 var data = null;
2
3 var xhr = new XMLHttpRequest();
4 xhr.withCredentials = true;
5
6 xhr.addEventListener("readystatechange", function () {
7   if (this.readyState === 4) {
8     console.log(this.responseText);
9   }
10 });
11
12 xhr.open("GET", "http://gturnquist-quoters.cfapps.io/api/random");
13 xhr.setRequestHeader("Cache-Control", "no-cache");
14 xhr.setRequestHeader("Postman-Token", "f2e0bb4f-2c07-6995-2afb-66939fa534e9");
15
16 xhr.send(data);
```

The background of the screenshot shows a blurred view of the web application, including a 'Send' button and a 'Save' button.

GENERATE CODE SNIPPETS

JavaScript XHR

Copy to Clipboard

HTTP

C (LibCurl)

cURL

C# (RestSharp)

```
httpRequest();
s = true;

er("readystatechange", function () {
ate === 4) {
is.responseText);
```

JavaScript

NodeJS

Objective-C (NSURLSession)

OCaml (Cohttp)

PHP

Python

Ruby (NET::Http)

Shell

Swift (NSURLSession)

Jquery AJAX

XHR

```
er("Cache-Control" = "no-cache");
1d2-fbc0-6491-6474-c07d72f8f24d");
```

GENERATE CODE SNIPPETS

JavaScript JQuery AJAX ▾

```
1 ▾ var settings = {  
2   "async": true,  
3   "crossDomain": true,
```

```
6 ▾   "headers": {  
7     "Cache-Control": "no-cache",  
8     "Postman-Token": "1b9b87a0-27ea-de75-86cf-36f415d4d0fd"  
9   }  
i 10 }  
11  
12 ▾ $.ajax(settings).done(function (response) {  
13   console.log(response);  
14 });|
```

GENERATE CODE SNIPPETS

HTTP ▾

```
1 GET /api/random HTTP/1.1
2 Host: gturnquist-quoters.cfapps.io
```

```
4 POSTman-Token: 10a40b33-13a3-1270-8070-002a10c13a00
```

```
5
```

5

Web Service call parameters

This example REST Web Service does not have any parameters but I just wanted to show you how you would add them. i.e. The example below would be the same as calling `http://gturnquist-quoters.cfapps.io/api/random?id=123`

New Tab spring No Environment

spring Examples (0)

GET http://gturnquist-quoters.cfapps.io/api/random?id=123 Params Send Save

Key	Value	Description
<input checked="" type="checkbox"/> id	123	
New key	Value	Description

Authorization Headers Body Pre-request Script Tests Cookies Code

GENERATE CODE SNIPPETS

JavaScript XHR

Copy to

```
1 var data = null;
2
3 var xhr = new XMLHttpRequest();
4 xhr.withCredentials = true;
5
6 xhr.addEventListener("readystatechange", function () {
7   if (this.readyState === 4) {
8     console.log(this.responseText);
9   }
10 });
11
12 xhr.open("GET", "http://gturnquist-quoters.cfapps.io/api/random?id=123");
13 xhr.setRequestHeader("Cache-Control", "no-cache");
14 xhr.setRequestHeader("Postman-Token", "743ffdf4-fb15-5df0-c66d-a5b3e80d065c");
15
16 xhr.send(data);
```

Web Service header parameters

Again this example REST web service does not require you to pass any header parameters but this is how you would usually pass any parameters such as authorisation credentials. For this demo I will just pass the Content-Type = application/xml but you could also pass something like Authorisation = "OAuth ??????????...."

The screenshot displays a REST client interface. At the top, a table lists headers with columns for Key, Value, and Description. The first header is 'id' with value '123'. Below this, the 'Headers (1)' tab is selected, showing a single header: 'Content-Type' with value 'application/xml'. The 'Body' tab is also visible. At the bottom, the 'Test Results' section shows a successful response (Status: 200 OK, Time: 535 ms, Size: 445 B) in JSON format. The response body is a JSON object with a 'type' of 'success', a 'value' object containing 'id' (8) and 'quote' (a string about code scaling).

Key	Value	Description
<input checked="" type="checkbox"/> id	123	

Key	Value	Description
<input checked="" type="checkbox"/> Content-Type	application/xml	

Status: 200 OK Time: 535 ms Size: 445 B

```
1 {
2   "type": "success",
3   "value": {
4     "id": 8,
5     "quote": "I don't worry about my code scaling. Boot allows the developer to peel back the layers and customize when it's
6             appropriate while keeping the conventions that just work."
7   }
8 }
```

See result with WS header parameters being passed

GENERATE CODE SNIPPETS

JavaScript XHR

```

1  var data = null;
2
3  var xhr = new XMLHttpRequest();
4  xhr.withCredentials = true;
5
6  xhr.addEventListener("readystatechange", function () {
7    if (this.readyState === 4) {
8      console.log(this.responseText);
9    }
10 });

14  xhr.setRequestHeader("Cache-Control", "no-cache");
15  xhr.setRequestHeader("Postman-Token", "de40f654-4aae-ef0d-d7df-3ab2b8fb7736");
16
17  xhr.send(data);

```

But for this example simply remove the parameters or un check them so they are ignored.

GET
http://gturnquist-quoters.cfapps.io/api/random
Params
Send
Save

Key	Value	Description	...	Bulk Edit
<input type="checkbox"/> Id	123			
New key	Value	Description		

Authorization
Headers (1)
Body
Pre-request Script
Tests
Cookies
Code

Key	Value	Description	...	Bulk Edit	Presets
<input type="checkbox"/> Content-Type	application/xml				

Progress Bar

This article is the first part of a series that will teach you how to consume/use/call a web service from within your SAP system. The next step is to test that your SAP system is able to make an outbound [HTTP connection and is ready for the REST Web Service Call](#)



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