



# Charles Proxy Tool

**MOCKING APIS**

## Mocking API request and response

As a prerequisite to the below, ensure **Charles** is properly set up.

We will discuss 4 different techniques for mocking APIs, namely **Map Local**, **Map Remote**, **Breakpoints**, **Rewrite**.

> We just want to mock response data and not response status.

Use either **Map Local** or **Map Remote**

> We want to mock request data , response data as well as response status.

Use either **Breakpoints** or **Rewrite**

> We have copied the JSON response and saved it locally in a file with .json extension.

Use **Map Local**

> We have my JSON response hosted and available remotely through some URL.

Use **Map Remote**

> We just want to manipulate (request, response, response status) only a few times.

Use **Breakpoints**

> We are developing and need to manipulate (request, response, response status) a lot.

Use **Rewrite**

## Technique 1: Map Local

**Step 1:** As an example, get JSON from <https://reqres.in/api/users/2> , copy the data and paste it in some file and make some changes and save it with **.json extension**.

**Step 2:** Open **Charles**, click “compose a new request based on the selection” from the top of the toolbar. And enter this under URL “<https://reqres.in/api/users/2>” and hit “compose”. Then hit “Execute”. Now you will see the actual response.

**Step 3:** Go to Tools> Map Local. Check “Enable Map Local” . Click Add and enter the

following:

**Protocol:** https

**Host:** reqres.in

**Path:** /api/users/2

**Step 4:** Under “Local Path” , choose your local saved file and click “OK” on both the windows opened.

**Step 5:** Click on repeat “Repeat selected requests” icon from top of the toolbar. And check the desired response.

And Voila!!!!

*Tip: To avoid manually entering details, right click on the api endpoint and select your option like Map Local/Remote. It will be auto populated.*

## Technique 2: Map Remote

**Step 1:** Open **Charles**, click “compose a new request based on the selection” from the top of the toolbar. And enter this under URL “<https://reqres.in/api/users/2>” and hit “compose”. Then hit “Execute”. Now you will see the actual response.

**Step 2:** Go to Tools> Map Remote. Check “Enable Map Remote” . Click Add and enter the following:

Under Map From,

**Protocol:** https

**Host:** reqres.in

**Path:** /api/users/2

Under Map To,

**Protocol:** https

**Host:** reqres.in

**Path:** /api/users/3

**Step 3:** Click “OK” on both the windows opened.

**Step 4:** Click on repeat “Repeat selected requests” icon from top of the toolbar. And check the desired response.

## Technique 3: Breakpoints

**Step 1:** Go to Proxy> Breakpoints Settings

**Step 2:** Check “Enable Breakpoints” and click on “Add” and fill all the details like above.

**Step 3:** Check “Request” and/or “Response” based on what we want to manipulate or both. Click “OK” on both the windows opened.

**Step 4:** Click on repeat “Repeat selected requests” icon from top of the toolbar.

**Step 5:** Window opens to “Edit Request” . click “Execute” when you are done. Similarly for editing response also.

## Technique 4: Rewrite

**Step 1:** Go to Tools> Rewrite. Check “Enable Rewrite”

**Step 2:** Click “Add” and click on “Add” under “Location”. Enter the values like before.

**Step 3:** Click on “Add” under “Action”

**Step 4:** Select “Type” to rewrite whatever you want to.

**Step 5:** Select “Match Whole value” to replace the entire JSON response. And Select “Replace All”

**Step 6:** Paste desired response under “value”

**Step 6:** Click “OK” on both the windows opened.

Wow, it was so easy. Thanks

