View Someone Else's Cart

Any time multiple users have separate data, you want to test how well they're kept apart. There's a shopping cart here, and each user should probably have their own cart, and should not be able to see what's in other people's carts. How does that work?

Ideas

If the cart has an identifier associated with it, and if that identifier is a predictable value, what happens if you submit other similar values instead?

Alternatives

This walk-thru shows two different solutions: first, using only the browser (and a lucky number guess) and the second using Burp Intruder (because the guessing isn't always this easy.)

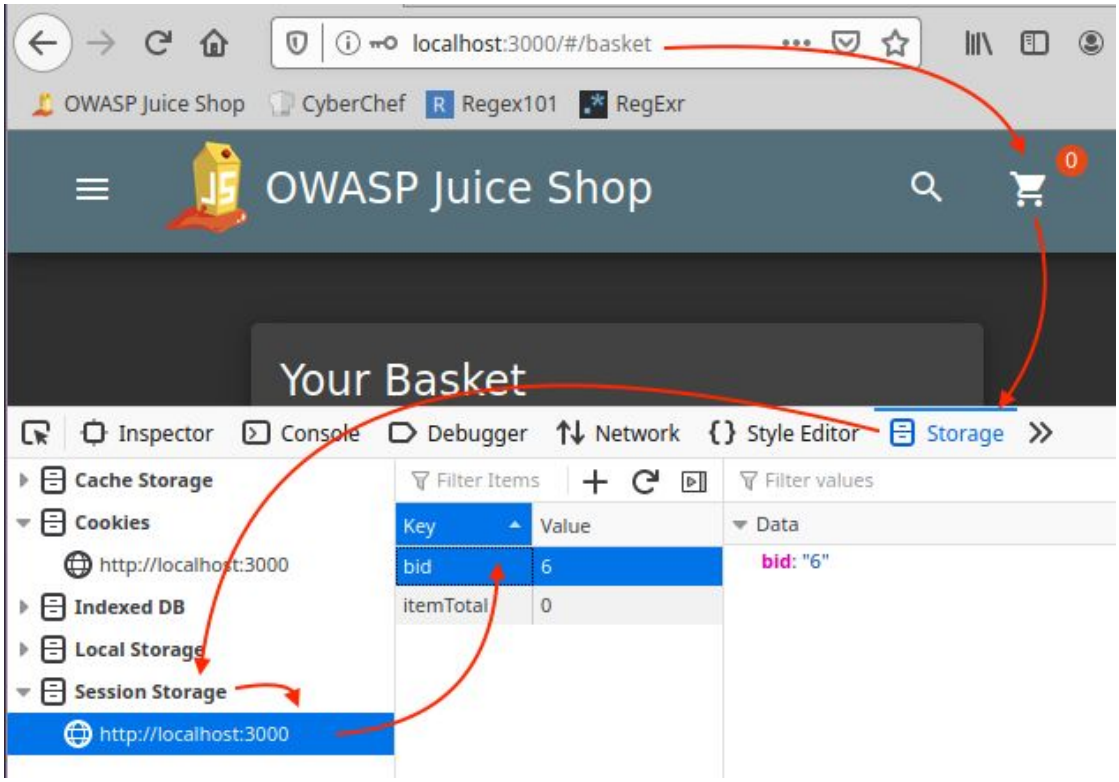
Walk-Thru: In-Browser

First Method: All in the browser, with Developer Tools

1. Log in as your user and click "Your Basket" at the top right of the page. It doesn't matter if you have things in there or not.

2. Open Developer Tools in your Browser (F12 or Ctrl-Shift-i) and open the Storage tab.

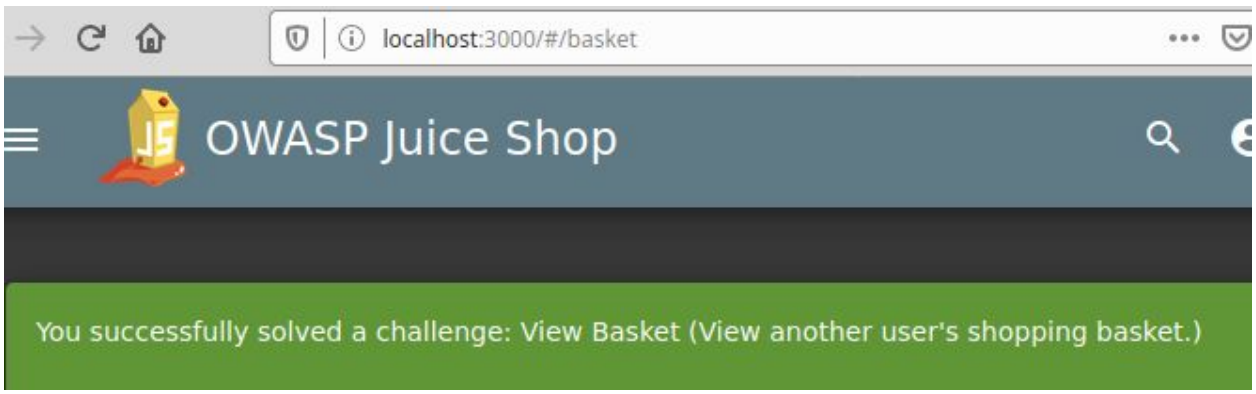
3. Open the Session Storage container and click on "http://localhost:3000/ to see what's there. Click on the "Key" called "bid"



Viewing Local "Session Storage"

4. Double-click on the number in the "Value" column of the "bid" row and replace the number there with the number 2, then hit "enter" or click outside the field to save your edit.

5. Click the "reload" button next to the browser's address bar and you should see the reward banner. Juice Shop tracks your achievements, so if you already saw this banner before, you won't see it again now.

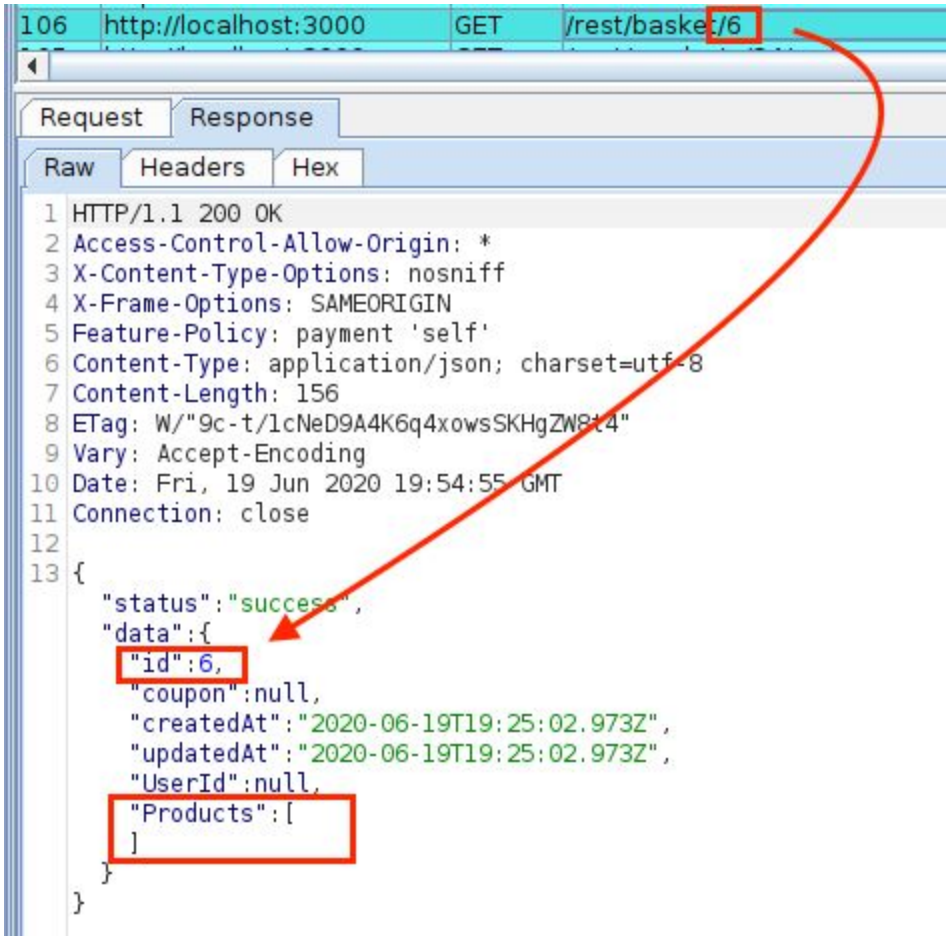


Walk-Thru: Burp Suite

What if the numbers weren't so easy to guess? Let's look at how Burp Intruder can help automate guessing.
Make sure you have Firefox set to use your Burp Suite as a proxy, and that the Proxy > Intercept pane says "Intercept is off"

1. Log in as your user and click "Your Basket" at the top right of the page. It doesn't matter if you have things in there or not.

2. Look at Burp's Proxy History and find the GET request sent to /rest/basket/6 (you may have a different number). Notice that the number in the URL is also in the JSON in the response body, where it's called "id"

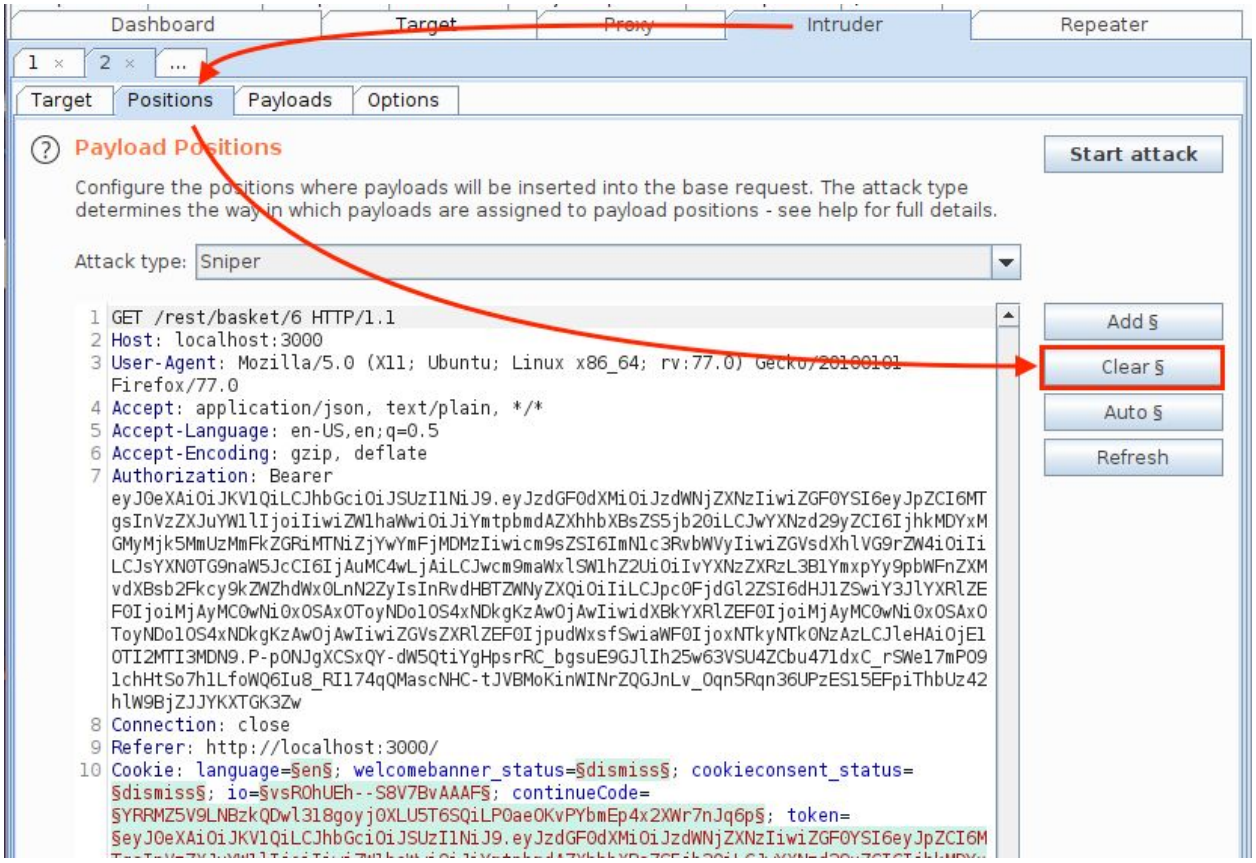


My "basket" Had ID Number 6 (yours may be different)

3. Right click on this request and choose "Send to Intruder"

Intruder is one of Burp's more powerful tools, and it is deliberately weakened in the Community version of Burp Suite. The limitations are not a problem for this lab, though.

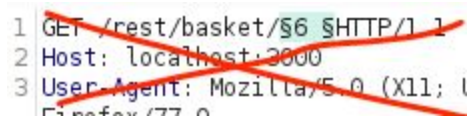
4. Click over to the Intruder tab, then the Positions tab. Once you're there, click the "Clear" button to erase the section symbols that mark Burp's guess at where you want to send attacks.



Clear Burp's Suggested Insertion Points

5. Highlight the number at the end of the URL and click the "Add" button to tell Burp Intruder which part of this request you want to work with. When you're done, you should see your number with a section symbol right next to it on either side with no spaces between the section symbols and one space before "HTTP/1.1".

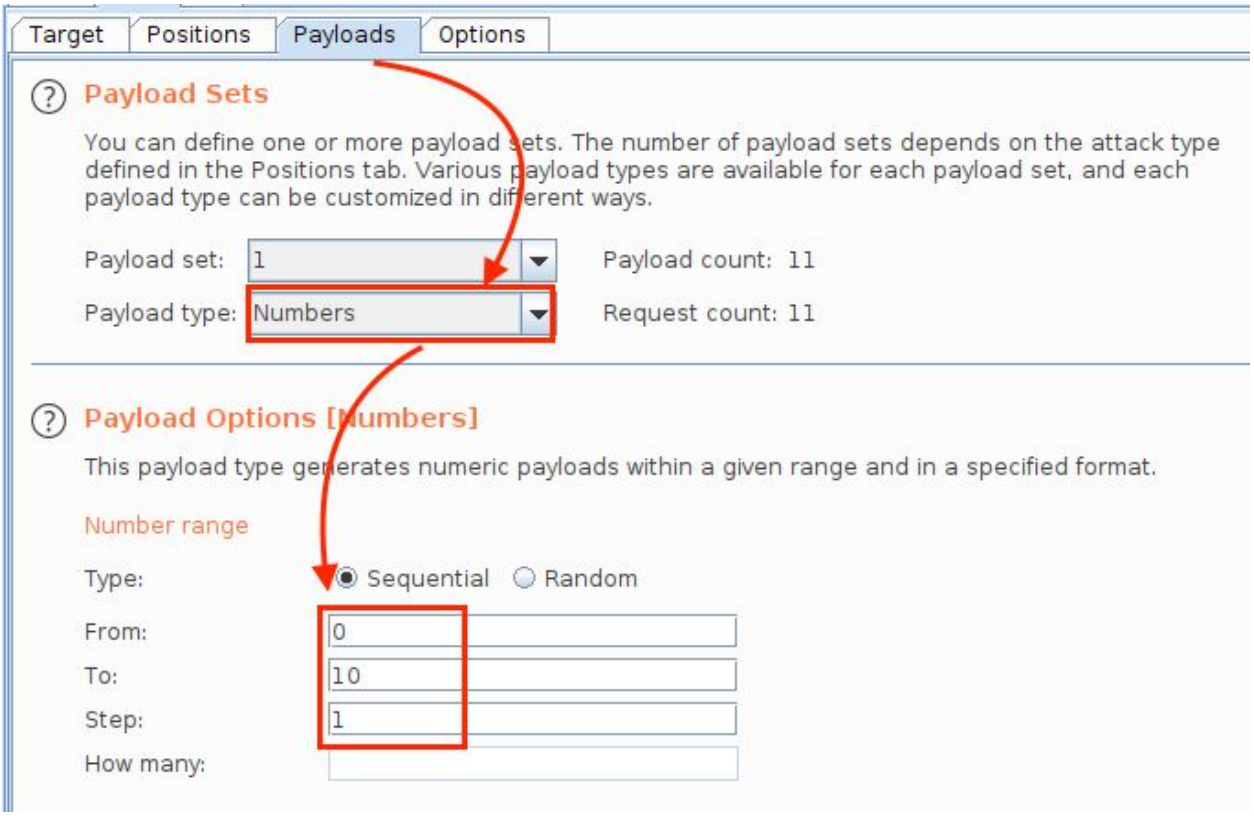
Like this



NOT like this.

6. Leave the "Attack Type" as "sniper" and click on the "Payloads" tab.

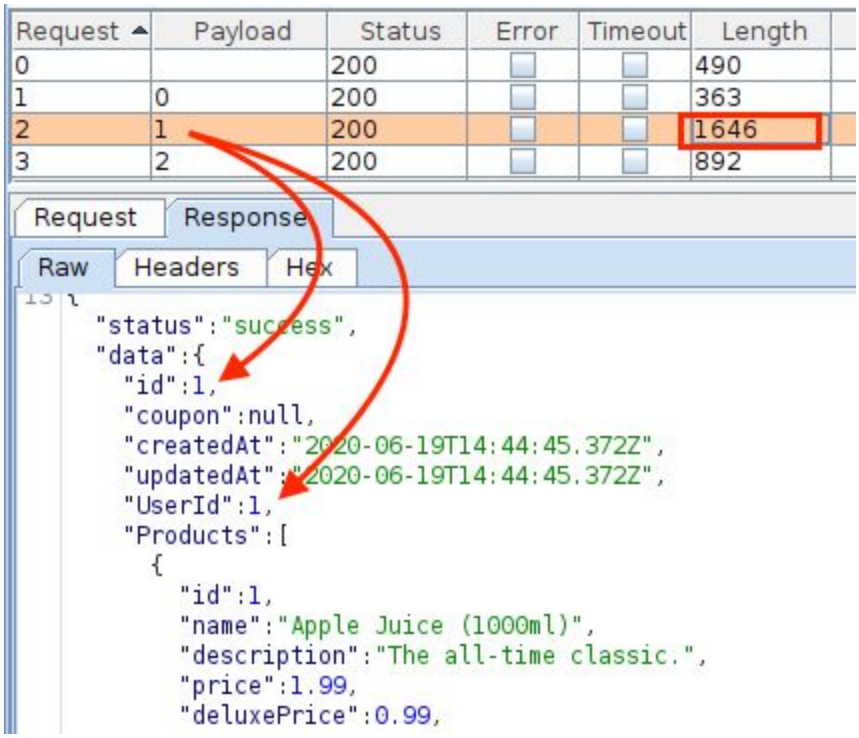
7. Choose a Payload Type of "Numbers" and set the Payload Options to go "from" zero "to" 10 with at "step" of 1. Notice the "Payload count" tells you how many values there will be.



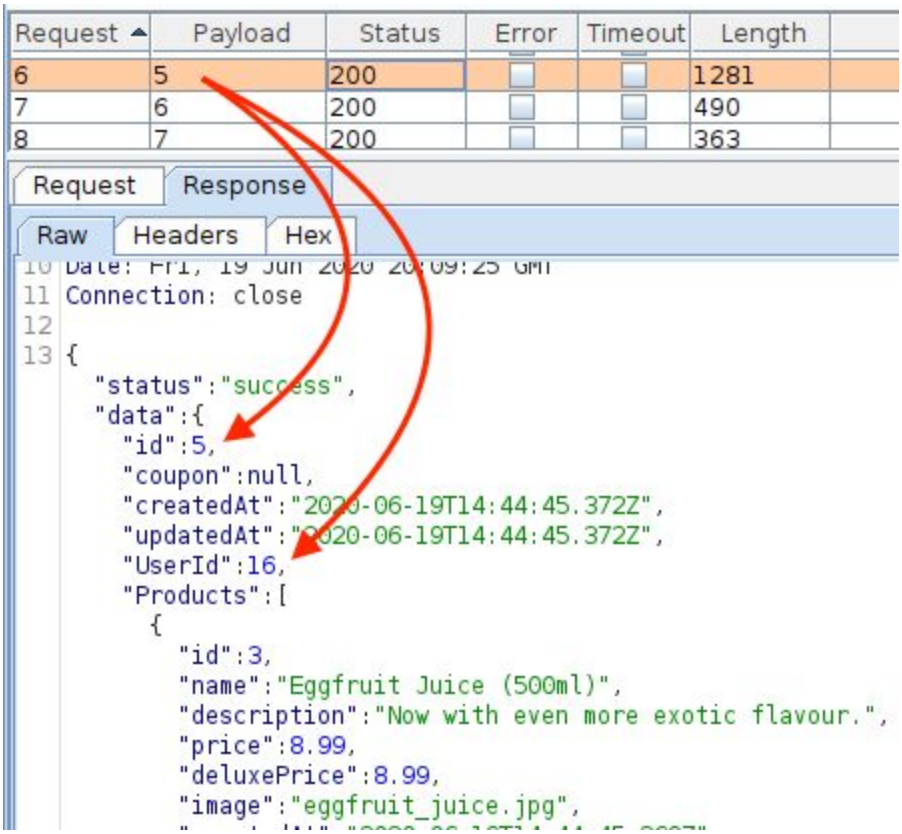
Setting Payload Options

8. Click "Start attack" and click "OK" on the warning message about how Intruder's features are limited in the Community version.

9. Notice the "Length" column in the results table. Some responses are larger than others. Click on the rows in the table one by one and inspect the responses. Notice that several of these requests returned information about other users' shopping baskets.
Remember that basket number 6 is yours, so seeing that one is not a problem.



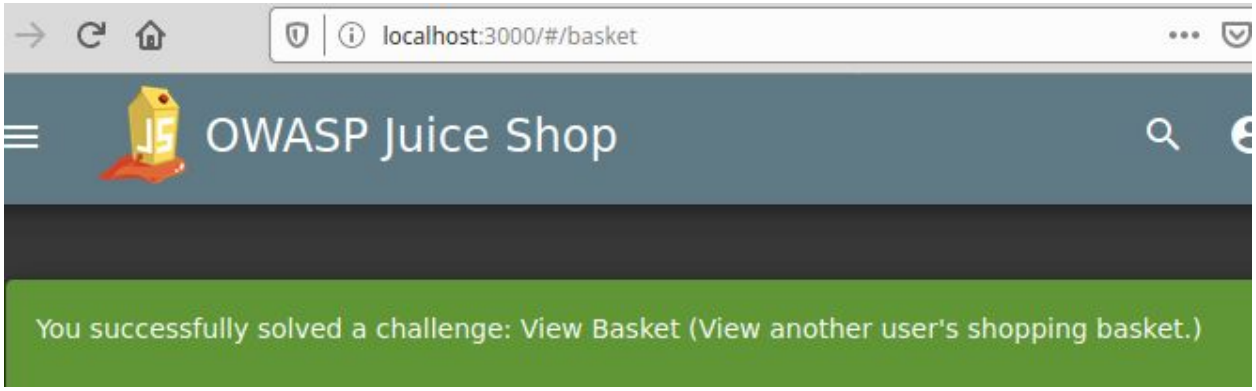
Basket #1 belongs to UserId #1 and has several items in it



Basket #5 belongs to UserId #16

Notice that the basket numbers and the user numbers are not always the same. That doesn't get you anything in this lab, but it is the kind of thing you should take notice of when you're testing webapps.

10. Return to the browser to see your achievement. Juice Shop tracks your achievements, so if you already earned this banner before, you won't see it again now.



For Further Practice: Digi.Ninja labs

- Client-Side Authentication: https://authlab.digi.ninja/ClientSide
- Permissions based on user-agent: https://authlab.digi.ninja/UserAgent
- IP Address based authentication: https://authlab.digi.ninja/Bypass