Broken Access Control
Admin Cookie

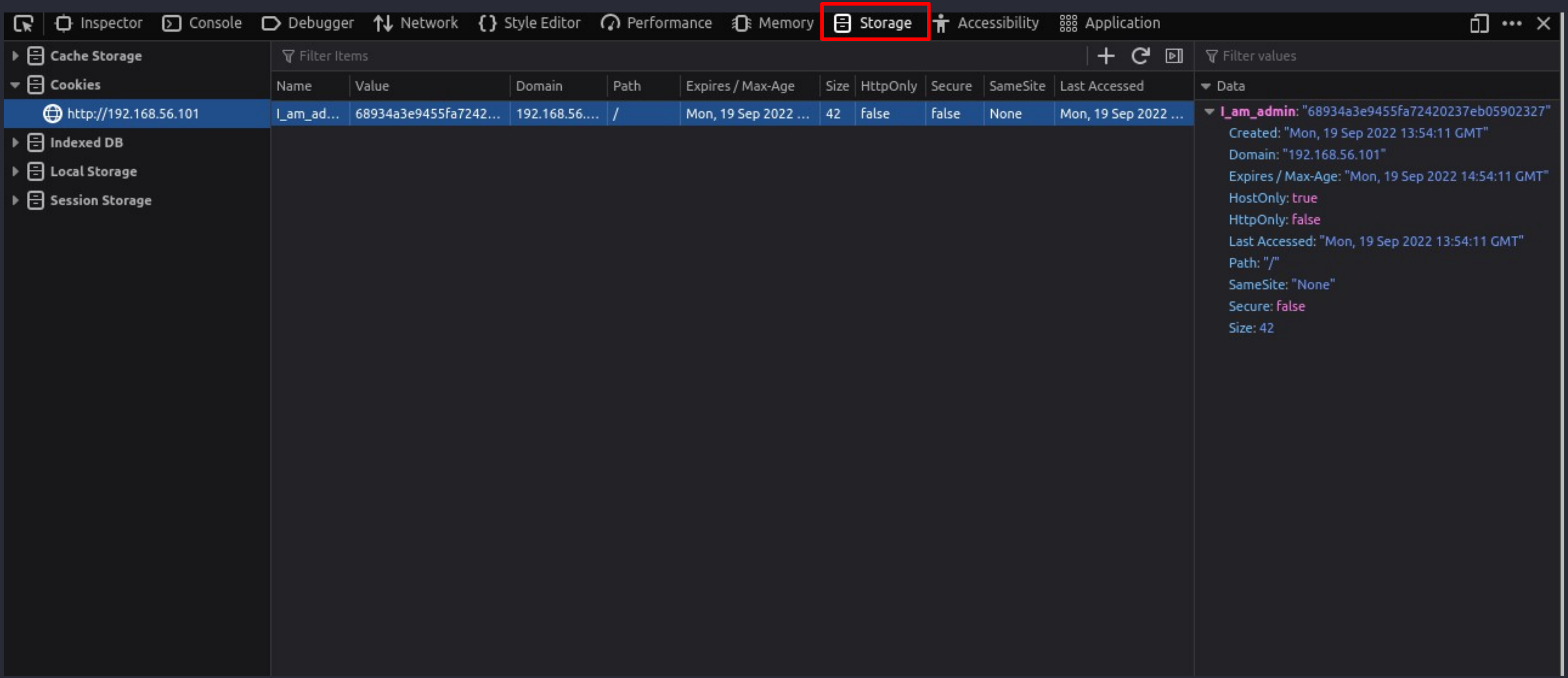
Moving up from the fifth position, 94% of applications were tested for some form of broken access control with the average incidence rate of 3.81%, and has the most occurrences in the contributed dataset with over 318k. Notable Common Weakness Enumerations (CWEs) included are *CWE-200: Exposure of Sensitive Information to an Unauthorized Actor*, *CWE-201: Insertion of Sensitive Information Into Sent Data*, and *CWE-352: Cross-Site Request Forgery*.

Access control enforces policy such that users cannot act outside of their intended permissions. Failures typically lead to unauthorized information disclosure, modification, or destruction of all data or performing a business function outside the user's limits.

In this context we talk about a insecure admin cookie.

Walk Through

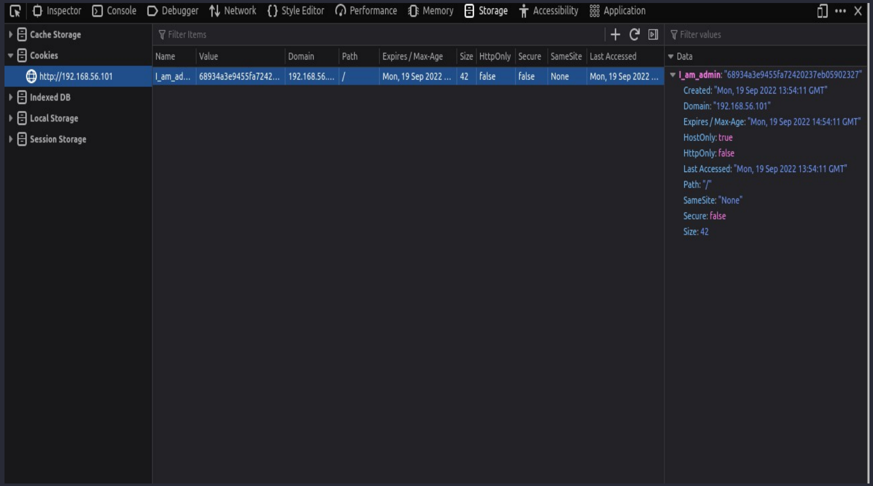
Step 1 : Open the web developer console on your browser and go to the Storage tab:



Name	Value	Domain	Path	Expires / Max-Age	Size	HttpOnly	Secure	SameSite	Last Accessed
I_am_ad...	68934a3e9455fa7242...	192.168.56....	/	Mon, 19 Sep 2022 ...	42	false	false	None	Mon, 19 Sep 2022 ...

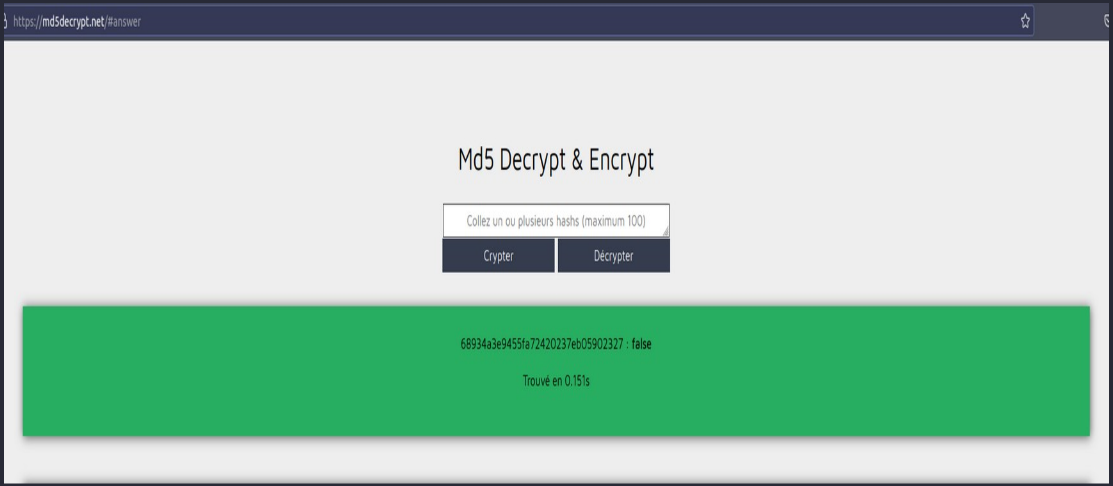
```
Data
  I_am_admin: "68934a3e9455fa72420237eb05902327"
    Created: "Mon, 19 Sep 2022 13:54:11 GMT"
    Domain: "192.168.56.101"
    Expires / Max-Age: "Mon, 19 Sep 2022 14:54:11 GMT"
    HostOnly: true
    HttpOnly: false
    Last Accessed: "Mon, 19 Sep 2022 13:54:11 GMT"
    Path: "/"
    SameSite: "None"
    Secure: false
    Size: 42
```

Step 2 : Copy the value of the cookie and try to decrypt it with https://md5decrypt.net/ for example



Name	Value	Domain	Path	Expires / Max-Age	Size	HttpOnly	Secure	SameSite	Last Accessed
I_am_ad...	68934a3e9455fa7242...	192.168.56....	/	Mon, 19 Sep 2022 ...	42	false	false	None	Mon, 19 Sep 2022 ...

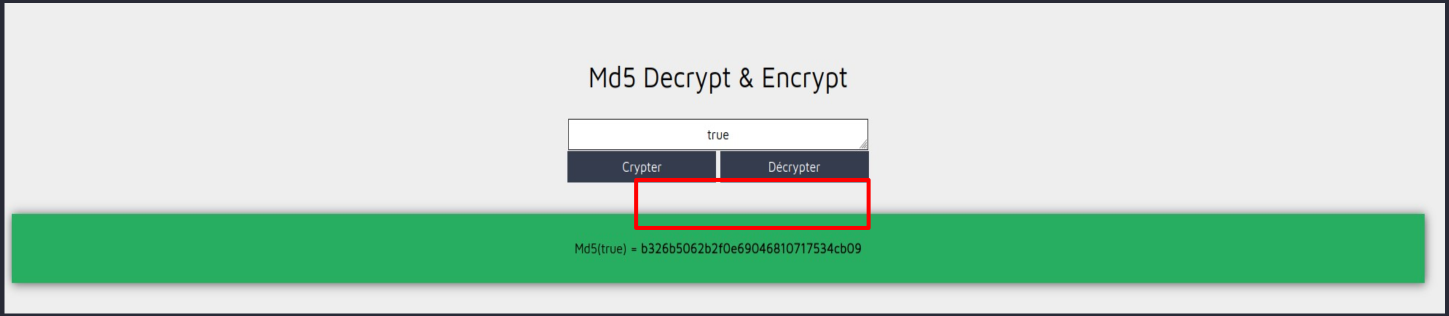
```
Data
I_am_admin: "68934a3e9455fa72420237eb05902327"
  Created: "Mon, 19 Sep 2022 13:54:11 GMT"
  Domain: "192.168.56.101"
  Expires / Max-Age: "Mon, 19 Sep 2022 14:54:11 GMT"
  HostOnly: true
  HttpOnly: false
  Last Accessed: "Mon, 19 Sep 2022 13:54:11 GMT"
  Path: "/"
  SameSite: "None"
  Secure: false
  Size: 42
```


https://md5decrypt.net/#answer
Md5 Decrypt & Encrypt
Collez un ou plusieurs hashs (maximum 100)
Crypter
Décrypter

68934a3e9455fa72420237eb05902327 : **false**

Trouvé en 0.151s

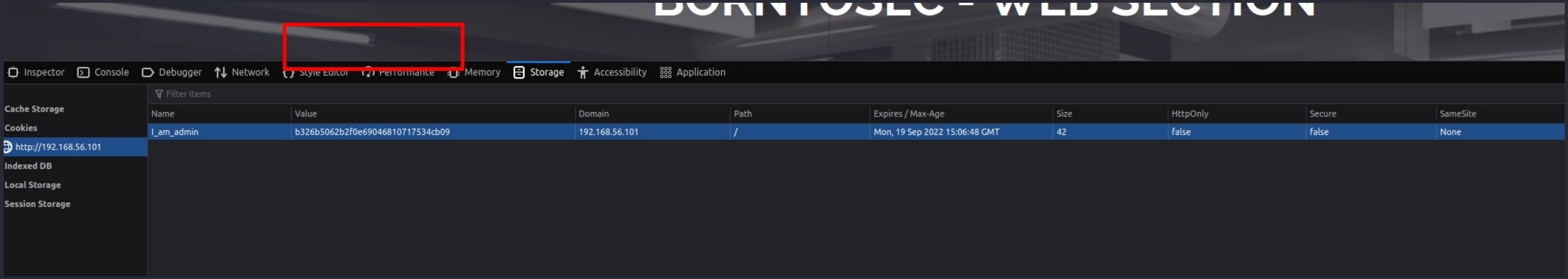
Step 3 : We see the decrypted hash value is : false so try encrypt true in md5 and replace the value of the cookie by the new hash



Md5 Decrypt & Encrypt

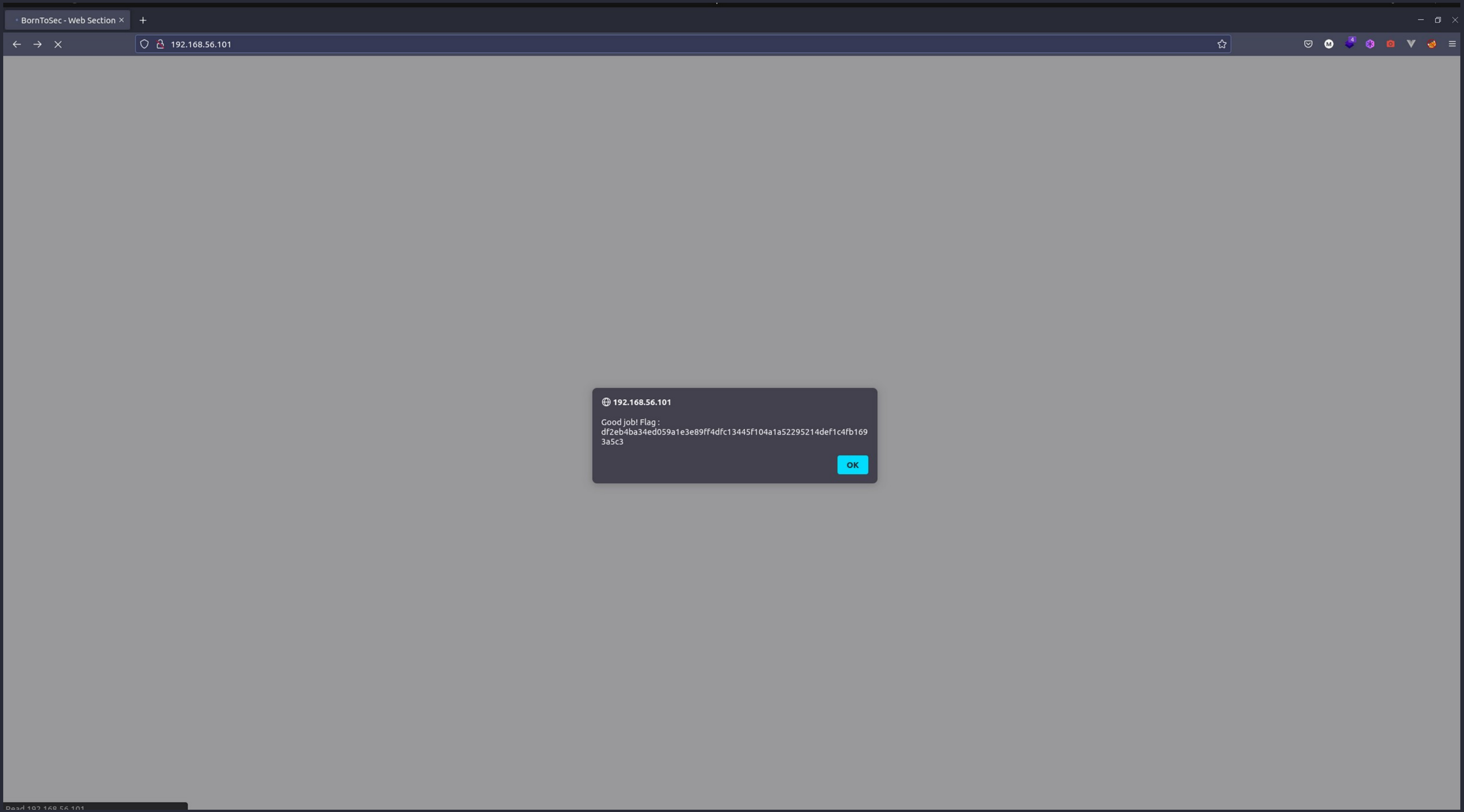
true

Md5(true) = b326b5062b2f0e69046810717534cb09



Name	Value	Domain	Path	Expires / Max-Age	Size	HttpOnly	Secure	SameSite
I_am_admin	b326b5062b2f0e69046810717534cb09	192.168.56.101	/	Mon, 19 Sep 2022 15:06:48 GMT	42	false	false	None

Step 4 : Reload the page and we are admin, we got the flag !!



192.168.56.101

Good job! Flag :
df2eb4ba34ed059a1e3e89ff4dfc13445f104a1a52295214def1c4fb169
3a5c3

Tools :

- https://md5decrypt.net/

How to fix :

- Use a more secure Algorithm than md5 like sha-512 or RSA
- Use an uid rather than a boolean to set the admin cookie
- Make check in the back when a cookie is changed.