

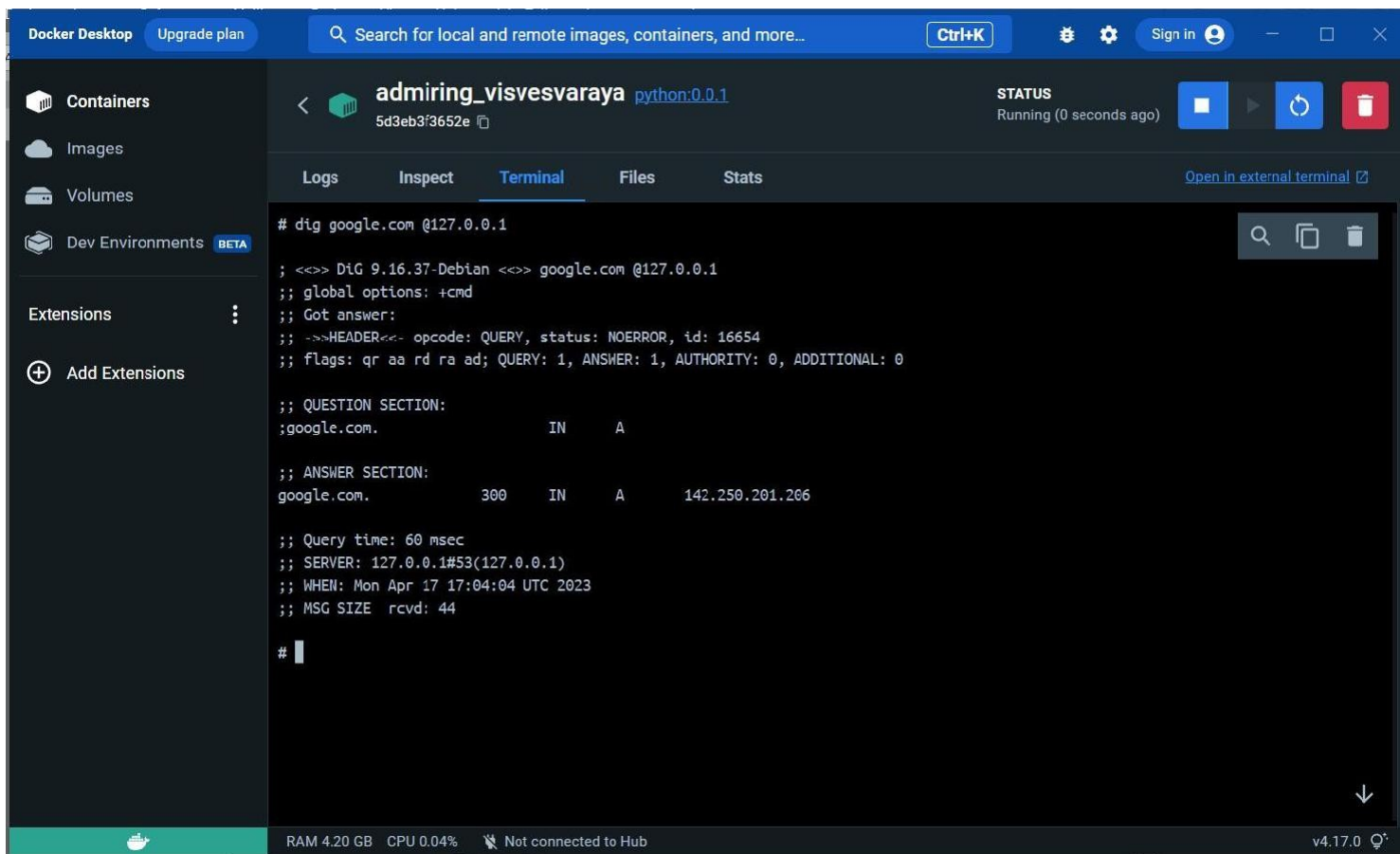
# Variant 1

## Direct run in Docker container.

Comanda : `docker build -t my-dns-server .` (in the same file with dockerfile)

Rulare: `docker run --rm my-dns-server`

## Example supported domain



```
# dig google.com @127.0.0.1

; <<>> DiG 9.16.37-Debian <<>> google.com @127.0.0.1
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 16654
;; flags: qr aa rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 0

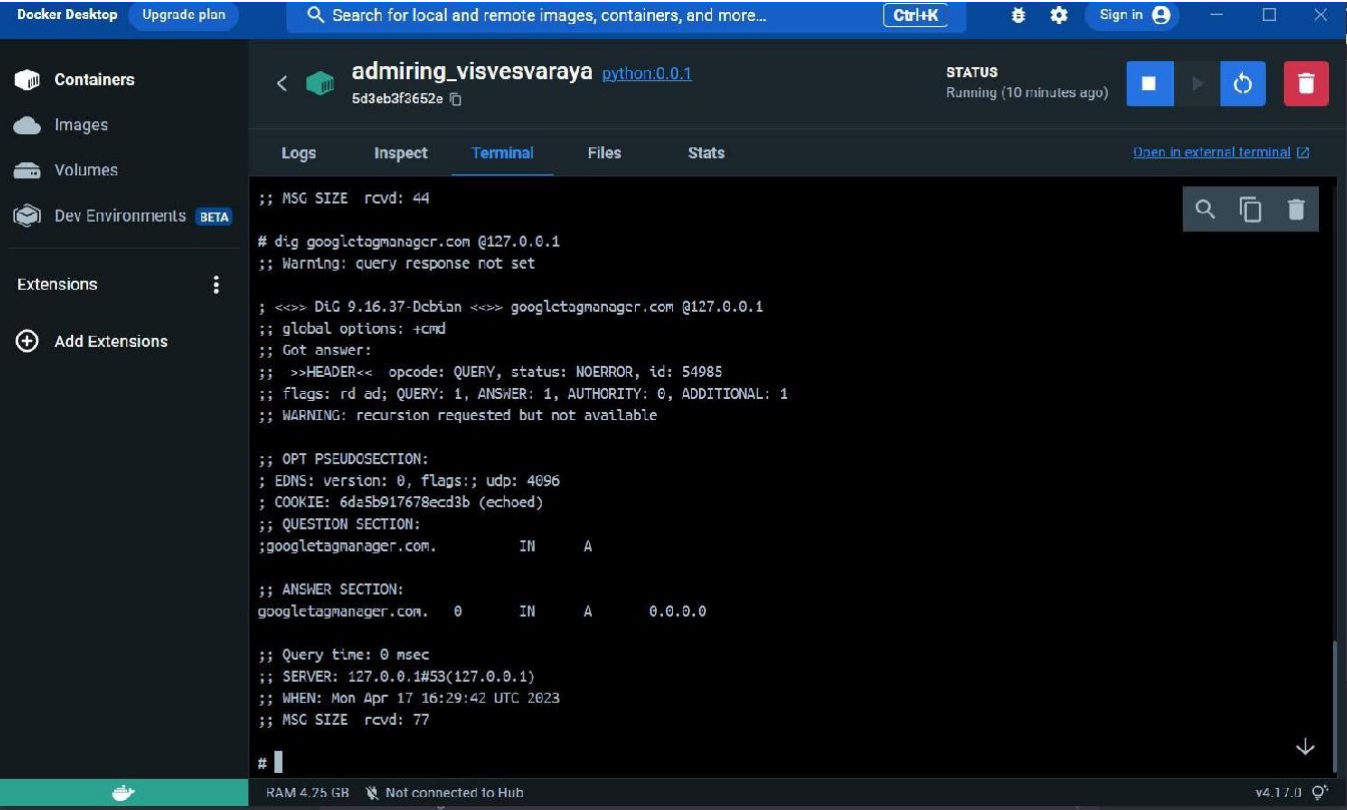
;; QUESTION SECTION:
;google.com.                IN      A

;; ANSWER SECTION:
google.com.                 300     IN      A      142.250.201.206

;; Query time: 60 msec
;; SERVER: 127.0.0.1#53(127.0.0.1)
;; WHEN: Mon Apr 17 17:04:04 UTC 2023
;; MSG SIZE rcvd: 44

#
```

# Example spam domain - BLOCKED



# Variant 2

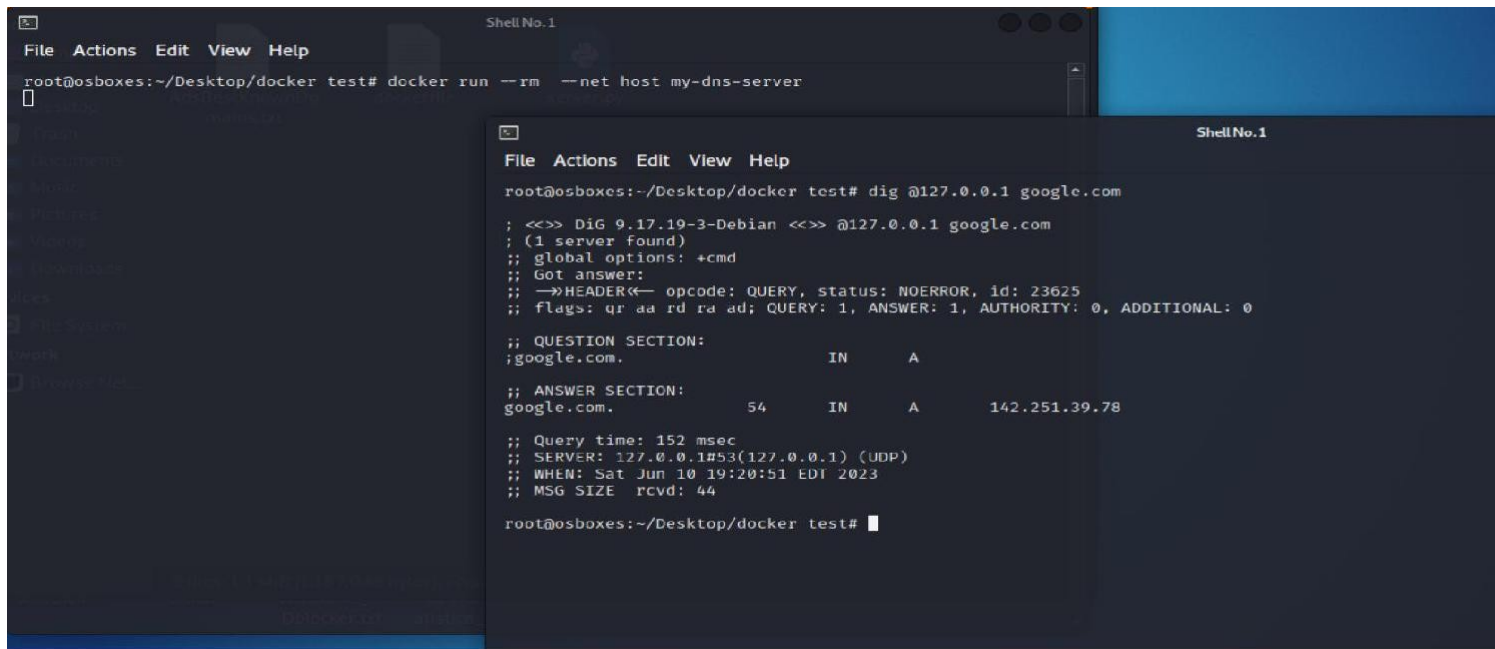
**Server opened in docker container and successfully used from local machine (linux)**

**Comanda creare container: docker build -t my-dns-server .**

**Comanda Rulare container ( in linux ) : docker run --rm --net host my-dns-server**

**Example 1 : Testing on domain Google.com (non-spam domain)**

**Used: Dig @127.0.0.1 google.com**



The image shows two terminal windows. The left window, titled 'Shell No.1', shows the command `docker run --rm --net host my-dns-server` being executed in a shell at `root@osboxes:~/Desktop/docker test#`. The right window, also titled 'Shell No.1', shows the command `dig @127.0.0.1 google.com` being executed. The output of the dig command is as follows:

```
root@osboxes:~/Desktop/docker test# dig @127.0.0.1 google.com

; <<>> DiG 9.17.19-3-Debian <<>> @127.0.0.1 google.com
; (1 server found)
;; global options: +cmd
;; Got answer:
;; -->HEADER<-- opcode: QUERY, status: NOERROR, id: 23625
;; flags: qr aa rd ra ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 0

;; QUESTION SECTION:
;google.com.                IN      A

;; ANSWER SECTION:
google.com.                 54      IN      A      142.251.39.78

;; Query time: 152 msec
;; SERVER: 127.0.0.1#53(127.0.0.1) (UDP)
;; WHEN: Sat Jun 10 19:20:51 EDT 2023
;; MSG SIZE rcvd: 44

root@osboxes:~/Desktop/docker test#
```

## Example 2 : testing on domain googletagmanager.com ( spam domain – BLOCKED)

```
File Actions Edit View Help
root@osboxes:~/Desktop/docker test# docker run --rm --net host my-dns-server

root@osboxes:~/Desktop/docker test# dig @127.0.0.1 googletagmanager.com
;; Warning: query response not set

; <<>> DiG 9.17.19-3-Debian <<>> @127.0.0.1 googletagmanager.com
; (1 server found)
;; global options: +cmd
;; Got answer:
;; ->HEADER<- opcode: QUERY, status: NOERROR, id: 64033
;; flags: rd ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;; WARNING: recursion requested but not available

;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
; COOKIE: 91e961c955223d57 (echoed)
;; QUESTION SECTION:
;googletagmanager.com.          IN      A

;; ANSWER SECTION:
googletagmanager.com.  0      IN      A      0.0.0.0

;; Query time: 4 msec
;; SERVER: 127.0.0.1#53(127.0.0.1) (UDP)
;; WHEN: Sat Jun 10 19:22:58 EDT 2023
;; MSG SIZE rcvd: 77

root@osboxes:~/Desktop/docker test#
```

+ output when stopping the server on the container and displaying statistics:

```
;; flags: qr aa rd ra ad; QUERY: 1, ANSWER: 0, AUTHORITY: 0, ADDITIONAL: 0
;; QUESTION SECTION:
;google.com.                  IN      A
;; ANSWER SECTION:
google.com.                  54      IN      A      142.251.39.78
2023-06-10 23:20:51 [DNSHandler:DNSAdBlock] Reply: [127.0.0.1:43983] (udp) / 'google.com.' (A) / RRs: A
2023-06-10 23:22:58 [DNSHandler:DNSAdBlock] Request: [127.0.0.1:47887] (udp) / 'googletagmanager.com.' (A) / RRs: A

Raspuns BLOCAT : ; ->HEADER<- opcode: QUERY, status: NOERROR, id: 64033
;; flags: rd ad; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;; QUESTION SECTION:
;googletagmanager.com.      IN      A
;; ANSWER SECTION:
googletagmanager.com.  0      IN      A      0.0.0.0
;; ADDITIONAL SECTION:
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 1232
; EDNS: code: 10; data: 91e961c955223d57
2023-06-10 23:22:58 [DNSHandler:DNSAdBlock] Reply: [127.0.0.1:47887] (udp) / 'googletagmanager.com.' (A) / RRs: A

Server stopped!

Statistica:

Numarul total de domenii blocate este: 1
Numarul de domenii blocate care contin 'Facebook' este: 0
Numarul de domenii blocate care contin 'Google' este: 1

root@osboxes:~/Desktop/docker test#
```