

ISSACK WAITHAKA
cs-sa07-24085

Introduction

- Domain Name system (DNS) – offer a simple way for us to communicate with devices in the internet without remembering complex numbers

Question

1.

Answer the questions below

What does DNS stand for?

Domain Name System

✓ Correct Answer

Domain Hierarchy

- Top-Level Domain(TLD) is the most right hand part of a domain name
- e.g for tryhackme.com the **.com** is the TLD
- is used to tell the purpose of a domain
- second-Level Domain is the **tryhackme**
- The subdomain is the left-hand side of the second-Level domain e.g blog.tryhackme.com

Questions

Answer the questions below

What is the maximum length of a subdomain?

63

✓ Correct Answer

🔍 Hint

Which of the following characters cannot be used in a subdomain (3 b _ -)?

-

✓ Correct Answer

What is the maximum length of a domain name?

253

✓ Correct Answer

What type of TLD is .co.uk?

ccTLD

✓ Correct Answer

Record Types

- A record Resolve ipv4 addresses
- AAAA Record resolve ipv6 addresses
- CNAME Records used to resolve another domain name
- MX Record records to resolve the address of the server that handle the email for the domain
- TXT record are free text fields where text-based can be stored

Questions

Answer the questions below

What type of record would be used to advise where to send email?

MX

✓ Correct Answer

What type of record handles IPv6 addresses?

AAAA

✓ Correct Answer

Making a request

- When a request is made, a computer looks for previously used addresses
- The root servers redirect you to Top Level domain depending on request
- The TLD holds records for where to find the nameserver
- the nameserver is used to store the DNS records for a particular name

Question

1.

Answer the questions below

What field specifies how long a DNS record should be cached for?

TTL

✓ Correct Answer

What type of DNS Server is usually provided by your ISP?

recursive

✓ Correct Answer

What type of server holds all the records for a domain?

authoritative

✓ Correct Answer

Practical

- I clicked the view site button to access the website.

tryhackme.com/r/room/dnsindetail

Pre Security > How The Web Works > DNS in detail

DNS in detail

Learn how DNS works and how it helps you access internet services.

Easy 45 min

Help Save Room 7562 Options

Room progress (71%)

DNS Type subdomain Send DNS Request

```
user@thm:~$ nslookup website.thm
```

DNS in Detail • Jul 11, 2021 Source: YouTube

DNS in Detail - How the web works

Share

How DNS Works

1.

Answer the questions below

What is the CNAME of shop.website.thm?

shops.myshopify.com

✓ Correct Answer

DNS Type subdomain Send DNS Request

```
user@thm:~$ nslookup --type=CNAME shop.website.thm
Server: 127.0.0.53
Address: 127.0.0.53#53

Non-authoritative answer:
shop.website.thm canonical name = shops.myshopify.com

user@thm:~$ nslookup website.thm
```

2.

What is the value of the TXT record of website.thm?

THM{7012BBA60997F35A9516C2E16

✓ Correct Answer

💡 Hint

DNS Type ▼

subdomain

Send DNS Request

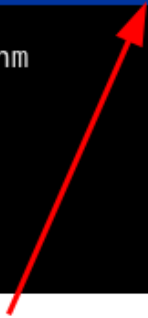
```
user@thm:~$ nslookup --type=CNAME shop.website.thm
Server: 127.0.0.53
Address: 127.0.0.53#53

Non-authoritative answer:
shop.website.thm canonical name = shops.myshopify.com

user@thm:~$ nslookup --type=TXT website.thm
Server: 127.0.0.53
Address: 127.0.0.53#53

Non-authoritative answer:
website.thm text = "THM{7012BBA60997F35A9516C2E16D2944FF}"

user@thm:~$ nslookup website.thm
```

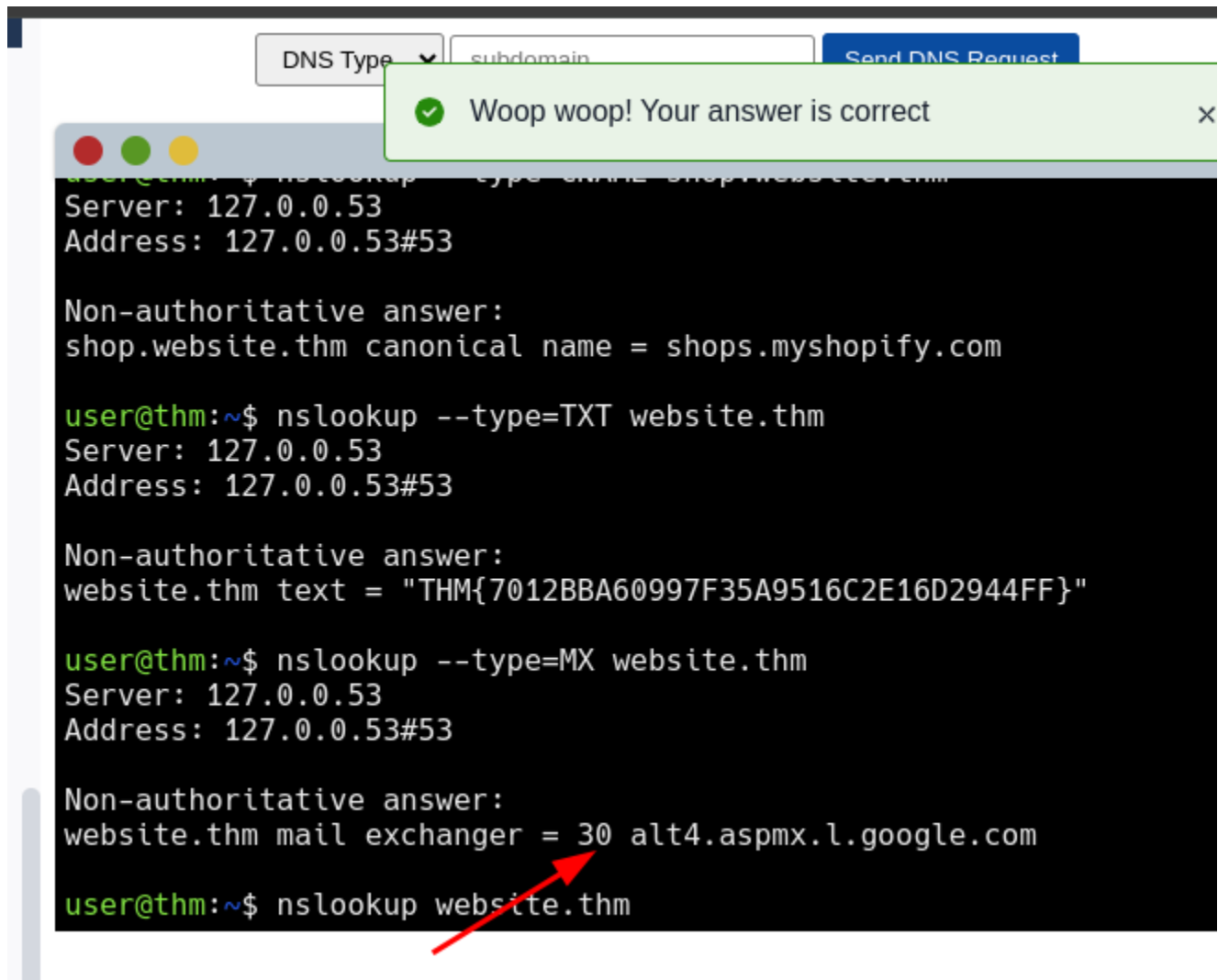


3.

What is the numerical priority value for the MX record?

30

✓ Correct Answer



```
user@thm:~$ nslookup --type=MX website.thm
Server: 127.0.0.53
Address: 127.0.0.53#53

Non-authoritative answer:
website.thm mail exchanger = 30 alt4.aspmx.l.google.com

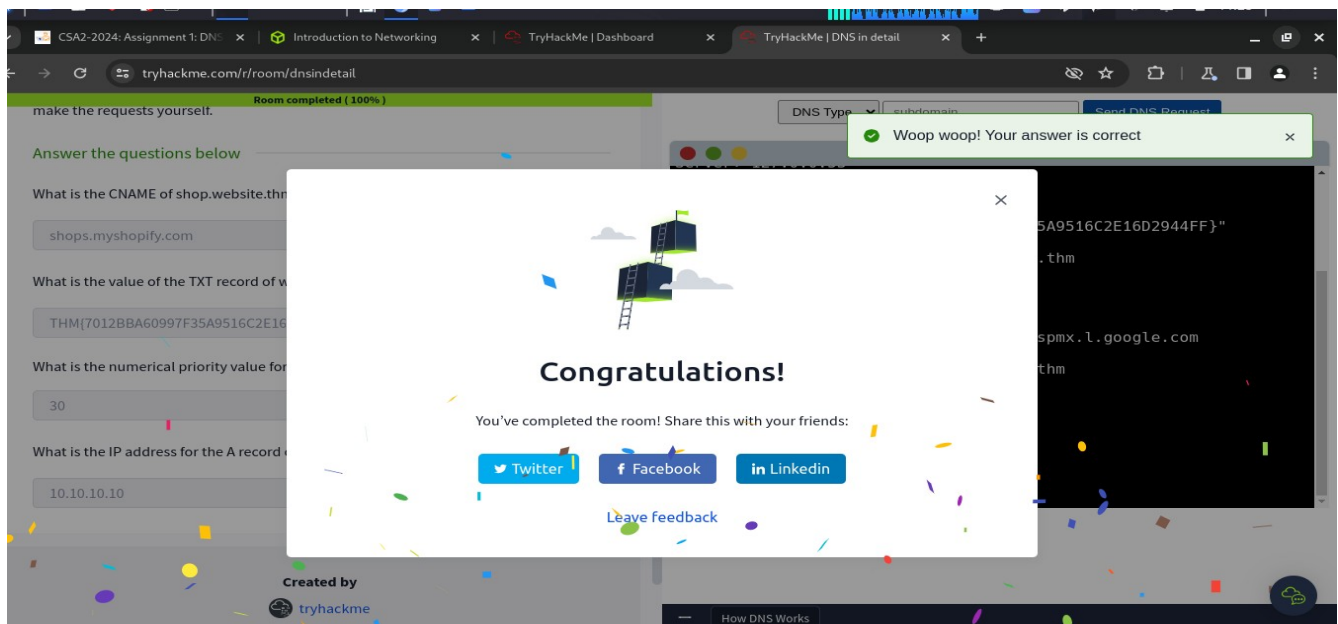
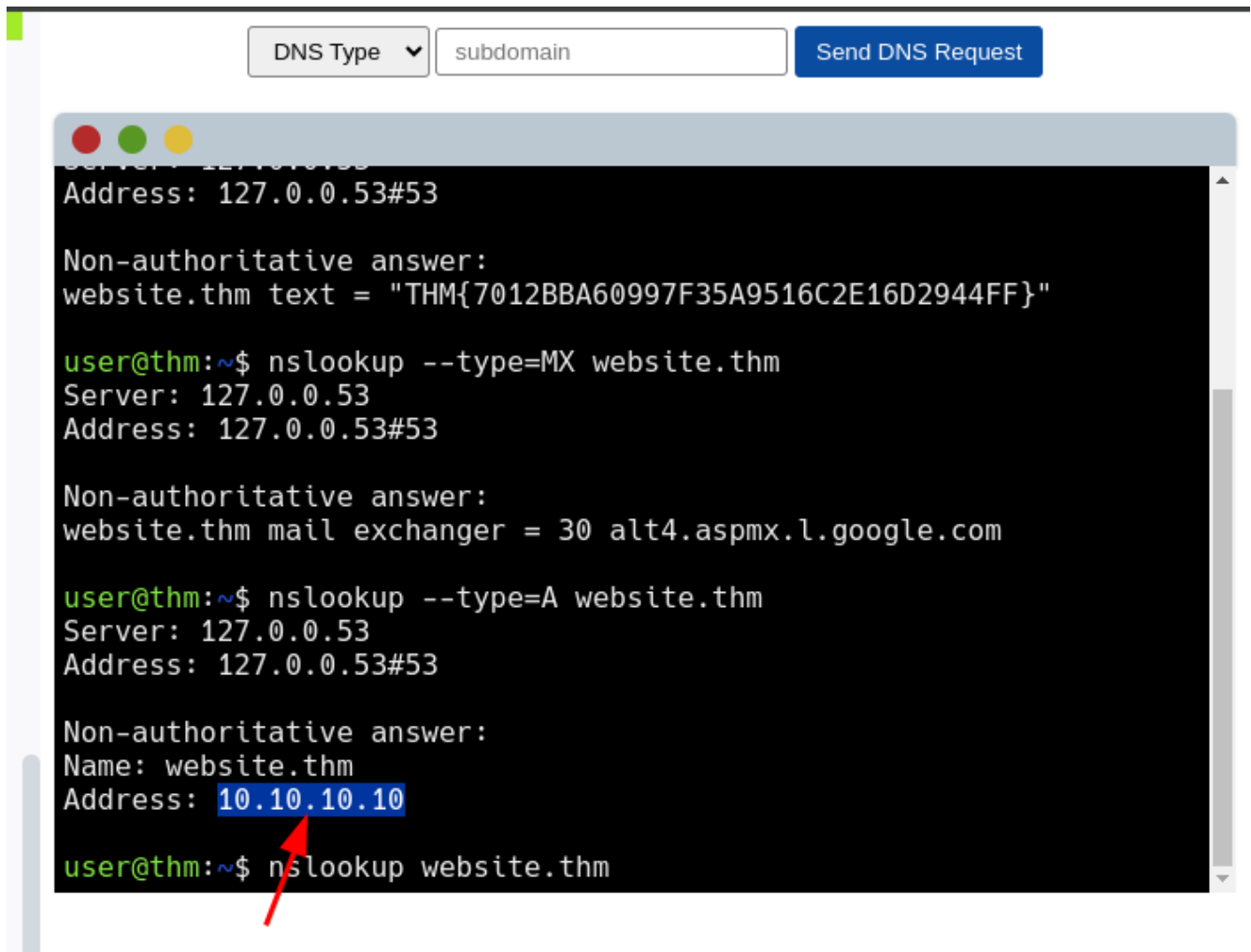
user@thm:~$ nslookup website.thm
```

4.

What is the IP address for the A record of www.website.thm?

10.10.10.10

✓ Correct Answer



Conclusion

- In this room I learnt about about DNS(Domain Name System) Which is a protocol that allows devices to communicate without having to remember complex numbers
- It translates IP addresses to domain names
- I also did a practical at the end which helped me fully understand DNS