TNE20003 – Internet and Cybersecurity for Engineering Applications

Understanding DNS & HTTP

Aims:

To understand DNS

To understand HTTP

## Preparation:

View "DNS & HTTP"

Due Date:

Nil. In-class activity.

1. Which protocol and port are used for DNS?   protocol: UDP for name and TCP for Zone transfer, port: 53

2. Which protocol and port are used for HTTP?   protocol: TCP

   port 80

3. Complete the sentence below relating to DNS
   The DNS protocol defines an automated service that matches. IP to domain name ....

4. The DNS server stores different types of resource records that are used to resolve names. These records contain the name, address, and type of record. Define each of the following record types:

   i. **A** - An end ipv4 ....
   ii. **NS** - An name server ....
   iii. **AAAA** - An end device ipv6 ....
   iv. **MX** - A mail service ....

5. What sort of structure does DNS use to find make the resolution? Explain.

   hierachy structure

6. What does the **nslookup** command allow a user to achieve?

   look up the domain name from the ip and vice versa

7. What is HTTP used for?

   encode the website from the server

8. What is the main difference between HTTP & HTTPS

   http is not secure
   https is secure

9.   List The three common message types used in HTTP & HTTPS

get, put, post, delete, header

10.   The diagram below shows a HTTP request. Identify A, B, C & D

B

A

GET / HTTP/1.1
Host: developer.mozilla.org
Accept-Language: fr

C

D
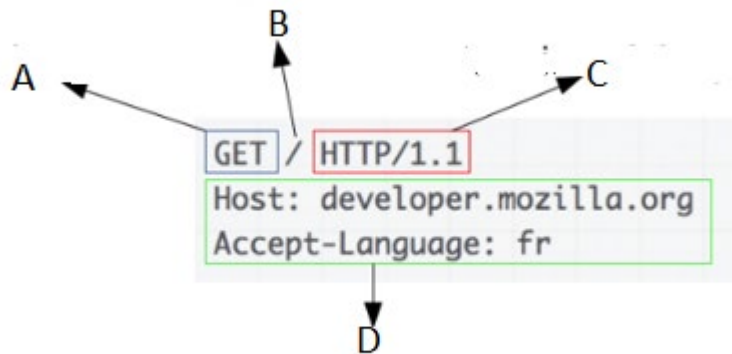
A=   command
B=   path
C=   protocol and version
D=   language

11.   What codes are used to identify a successful HTTP communications?

200 - 299