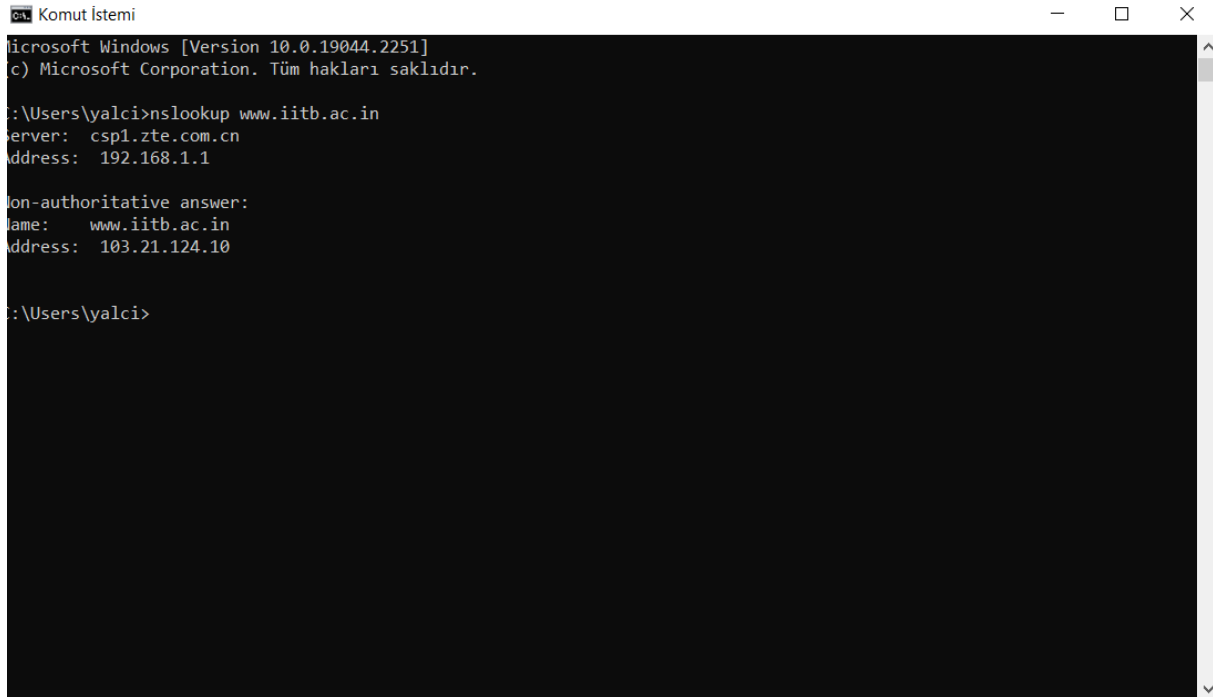


## CSE 4074 COMPUTER NETWORKS HOMEWORK 2

HASAN MERT YALÇIN - 150119647

Q1)

103.21.124.10



```
Komut İstemi
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. Tüm hakları saklıdır.

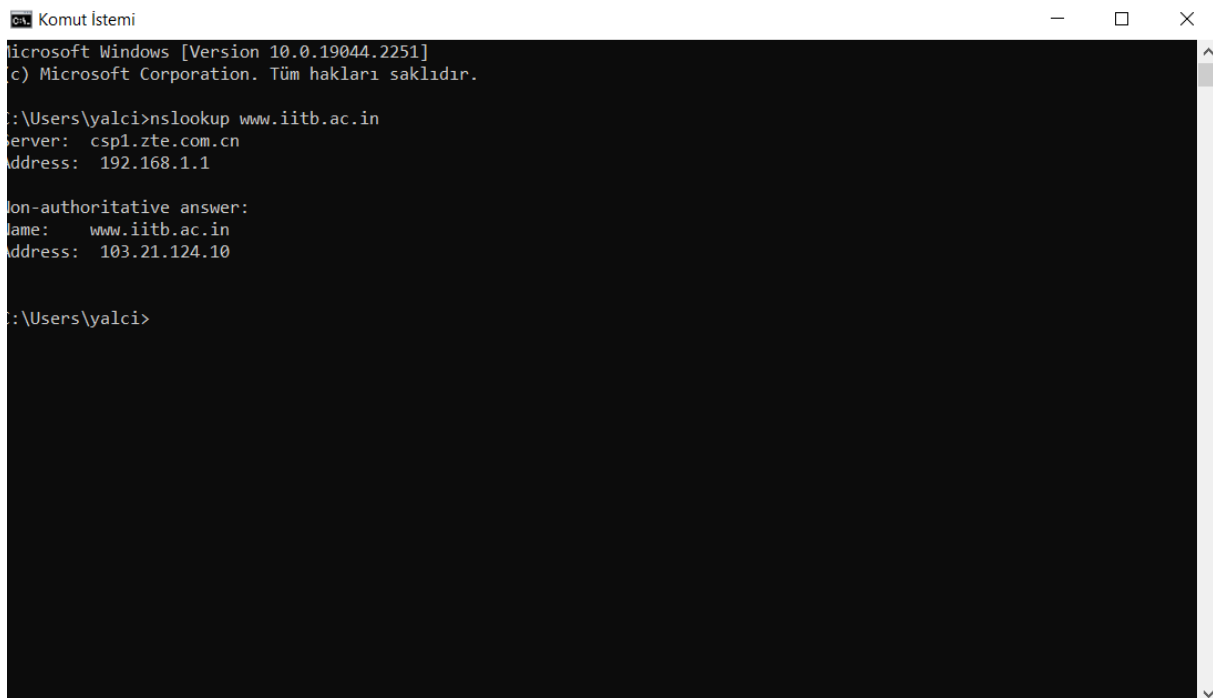
C:\Users\yalci>nslookup www.iitb.ac.in
Server: csp1.zte.com.cn
Address: 192.168.1.1

Non-authoritative answer:
Name: www.iitb.ac.in
Address: 103.21.124.10

C:\Users\yalci>
```

Q2)

192.168.1.1



```
Komut İstemi
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. Tüm hakları saklıdır.

C:\Users\yalci>nslookup www.iitb.ac.in
Server: csp1.zte.com.cn
Address: 192.168.1.1

Non-authoritative answer:
Name: www.iitb.ac.in
Address: 103.21.124.10

C:\Users\yalci>
```

Q3)

Non-authoritative

```
Komut İstemi
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. Tüm hakları saklıdır.

C:\Users\yalci>nslookup www.iitb.ac.in
Server: csp1.zte.com.cn
Address: 192.168.1.1

Non-authoritative answer:
Name: www.iitb.ac.in
Address: 103.21.124.10

C:\Users\yalci>
```

Q4)

iitb.ac.in nameserver = dns2.iitb.ac.in

iitb.ac.in nameserver = dns3.iitb.ac.in

iitb.ac.in nameserver = dns1.iitb.ac.in

```
Komut İstemi
Microsoft Windows [Version 10.0.19044.2251]
(c) Microsoft Corporation. Tüm hakları saklıdır.

C:\Users\yalci>nslookup -type=NS iitb.ac.in
Server: csp1.zte.com.cn
Address: 192.168.1.1

Non-authoritative answer:
iitb.ac.in nameserver = dns2.iitb.ac.in
iitb.ac.in nameserver = dns3.iitb.ac.in
iitb.ac.in nameserver = dns1.iitb.ac.in

C:\Users\yalci>
```

Q5)

15 and UDP.

dns-wireshark-trace1-1.pcapng

DOSYA Düzenle Görünüm Git Yakala Analiz İstatistikler Telefon Kablosuz Araçlar Yardım

No.	Time	Source	Destination	Protocol	Length	Info
15	3.325064	10.0.0.44	75.75.75.75	DNS	77	Standard query 0x3c29 A gaia.cs.umass.edu
17	3.348972	75.75.75.75	10.0.0.44	DNS	93	Standard query response 0x3c29 A gaia.cs.umass.edu A 128.119.245.12
30	3.427392	10.0.0.44	75.75.75.75	DNS	83	Standard query 0xeda4 A maxcdn.bootstrapcdn.com
31	3.428514	10.0.0.44	75.75.75.75	DNS	79	Standard query 0x0a79 A ajax.googleapis.com
35	3.445049	75.75.75.75	10.0.0.44	DNS	135	Standard query response 0xeda4 A maxcdn.bootstrapcdn.com CNAME cds.j3z9t3p6.hwcdn.net A 209.197.3.15
36	3.448906	75.75.75.75	10.0.0.44	DNS	95	Standard query response 0x0a79 A ajax.googleapis.com A 172.217.12.202
521	3.678228	10.0.0.44	75.75.75.75	DNS	75	Standard query 0xdcfa A www.pearson.com
522	3.678393	10.0.0.44	75.75.75.75	DNS	79	Standard query 0xb436 A www.vitalsource.com
523	3.678598	10.0.0.44	75.75.75.75	DNS	72	Standard query 0xd3a3 A redshelf.com
526	3.695928	75.75.75.75	10.0.0.44	DNS	169	Standard query response 0xdcfa A www.pearson.com CNAME wildcard.pearson.com.edgekey.net CNAME e290.x.akamaiedge.net A 23.34.92.227
527	3.698647	10.0.0.44	75.75.75.75	DNS	74	Standard query 0xe1a9 A www.amazon.com
528	3.703716	75.75.75.75	10.0.0.44	DNS	159	Standard query response 0xb436 A www.vitalsource.com A 104.17.67.241 A 104.17.65.241 A 104.17.68.241 A 104.17.69.241 A 104.17.66.241
529	3.704968	75.75.75.75	10.0.0.44	DNS	88	Standard query response 0xd3a3 A redshelf.com A 34.196.10.62
530	3.718156	75.75.75.75	10.0.0.44	DNS	169	Standard query response 0xe1a9 A www.amazon.com CNAME tp.47cf2c8c9-frontier.amazon.com CNAME d3ag4hukh62yn.cloudfront.net A 65.8.19.
541	6.801907	10.0.0.44	75.75.75.75	DNS	96	Standard query 0x6cf4 A ss-prod-ue1-notif-63.aws.adobess.com
542	6.818616	75.75.75.75	10.0.0.44	DNS	144	Standard query response 0x6cf4 A ss-prod-ue1-notif-63.aws.adobess.com A 52.205.134.231 A 52.20.111.22 A 3.213.114.154

Q6)

17 and UDP.

dns-wireshark-trace1-1.pcapng

DOSYA Düzenle Görünüm Git Yakala Analiz İstatistikler Telefon Kablosuz Araçlar Yardım

No.	Time	Source	Destination	Protocol	Length	Info
15	3.325064	10.0.0.44	75.75.75.75	DNS	77	Standard query 0x3c29 A gaia.cs.umass.edu
17	3.348972	75.75.75.75	10.0.0.44	DNS	93	Standard query response 0x3c29 A gaia.cs.umass.edu A 128.119.245.12
30	3.427392	10.0.0.44	75.75.75.75	DNS	83	Standard query 0xeda4 A maxcdn.bootstrapcdn.com
31	3.428514	10.0.0.44	75.75.75.75	DNS	79	Standard query 0x0a79 A ajax.googleapis.com
35	3.445049	75.75.75.75	10.0.0.44	DNS	135	Standard query response 0xeda4 A maxcdn.bootstrapcdn.com CNAME cds.j3z9t3p6.hwcdn.net A 209.197.3.15
36	3.448906	75.75.75.75	10.0.0.44	DNS	95	Standard query response 0x0a79 A ajax.googleapis.com A 172.217.12.202
521	3.678228	10.0.0.44	75.75.75.75	DNS	75	Standard query 0xdcfa A www.pearson.com
522	3.678393	10.0.0.44	75.75.75.75	DNS	79	Standard query 0xb436 A www.vitalsource.com
523	3.678598	10.0.0.44	75.75.75.75	DNS	72	Standard query 0xd3a3 A redshelf.com
526	3.695928	75.75.75.75	10.0.0.44	DNS	169	Standard query response 0xdcfa A www.pearson.com CNAME wildcard.pearson.com.edgekey.net CNAME e290.x.akamaiedge.net A 23.34.92.227
527	3.698647	10.0.0.44	75.75.75.75	DNS	74	Standard query 0xe1a9 A www.amazon.com
528	3.703716	75.75.75.75	10.0.0.44	DNS	159	Standard query response 0xb436 A www.vitalsource.com A 104.17.67.241 A 104.17.65.241 A 104.17.68.241 A 104.17.69.241 A 104.17.66.241
529	3.704968	75.75.75.75	10.0.0.44	DNS	88	Standard query response 0xd3a3 A redshelf.com A 34.196.10.62
530	3.718156	75.75.75.75	10.0.0.44	DNS	169	Standard query response 0xe1a9 A www.amazon.com CNAME tp.47cf2c8c9-frontier.amazon.com CNAME d3ag4hukh62yn.cloudfront.net A 65.8.19.
541	6.801907	10.0.0.44	75.75.75.75	DNS	96	Standard query 0x6cf4 A ss-prod-ue1-notif-63.aws.adobess.com
542	6.818616	75.75.75.75	10.0.0.44	DNS	144	Standard query response 0x6cf4 A ss-prod-ue1-notif-63.aws.adobess.com A 52.205.134.231 A 52.20.111.22 A 3.213.114.154

Q7)

Destination Port : 53

> Frame 15: 77 bytes on wire (616 bits), 77 bytes captured (616 bits) on interface en0, id 0
> Ethernet II, Src: Apple_98:d9:27 (78:4f:43:98:d9:27), Dst: Maxlinea_80:00:00 (00:50:f1:80:00:00)
> Internet Protocol Version 4, Src: 10.0.0.44, Dst: 75.75.75.75
> User Datagram Protocol, Src Port: 58350, Dst Port: 53
Source Port: 58350
Destination Port: 53
Length: 43
Checksum: 0xc31d [unverified]
[Checksum Status: Unverified]
[Stream index: 1]
> [Timestamps]
UDP payload (35 bytes)
> Domain Name System (query)

Domain Name System: Protocol

Q8)

75.75.75.75

dns-wireshark-trace1-1.pcapng

DOSYA Düzenle Görünüm Git Yakala Analiz İstatistikler Telefon Kablozuz Araçlar Yardım

No.	Time	Source	Destination	Protocol	Length	Info
15	3.325064	10.0.0.44	75.75.75.75	DNS	77	Standard query 0x3c29 A gaia.cs.umass.edu
17	3.348972	75.75.75.75	10.0.0.44	DNS	93	Standard query response 0x3c29 A gaia.cs.umass.edu A 128.119.245.12
30	3.427392	10.0.0.44	75.75.75.75	DNS	83	Standard query 0xeda4 A maxcdn.bootstrapcdn.com
31	3.428514	10.0.0.44	75.75.75.75	DNS	79	Standard query 0x0a79 A ajax.googleapis.com
35	3.445049	75.75.75.75	10.0.0.44	DNS	135	Standard query response 0xeda4 A maxcdn.bootstrapcdn.com CNAME cds.j3z9t3p6.hwcdn.net A 209.197.3.15
36	3.448906	75.75.75.75	10.0.0.44	DNS	95	Standard query response 0x0a79 A ajax.googleapis.com A 172.217.12.202
521	3.678228	10.0.0.44	75.75.75.75	DNS	75	Standard query 0xdcfa A www.pearson.com
522	3.678393	10.0.0.44	75.75.75.75	DNS	79	Standard query 0xb436 A www.vitalsource.com
523	3.678598	10.0.0.44	75.75.75.75	DNS	72	Standard query 0xd3a3 A redshelf.com
526	3.695928	75.75.75.75	10.0.0.44	DNS	169	Standard query response 0xdcfa A www.pearson.com CNAME wildcard.pearson.com.edgekey.net CNAME e290.x.akamaiedge.net A 23.34.92.227
527	3.698647	10.0.0.44	75.75.75.75	DNS	74	Standard query 0xe1a9 A www.amazon.com
528	3.703716	75.75.75.75	10.0.0.44	DNS	159	Standard query response 0xb436 A www.vitalsource.com A 104.17.67.241 A 104.17.65.241 A 104.17.68.241 A 104.17.69.241 A 104.17.66.241
529	3.704968	75.75.75.75	10.0.0.44	DNS	88	Standard query response 0xd3a3 A redshelf.com A 34.196.10.62
530	3.718156	75.75.75.75	10.0.0.44	DNS	169	Standard query response 0xe1a9 A www.amazon.com CNAME tp.47cf2c8c9-frontier.amazon.com CNAME d3ag4hukkh62yn.cloudfront.net A 65.8.19.
541	6.801907	10.0.0.44	75.75.75.75	DNS	96	Standard query 0x6cf4 A ss-prod-ue1-notif-63.aws.adobess.com
542	6.818616	75.75.75.75	10.0.0.44	DNS	144	Standard query response 0x6cf4 A ss-prod-ue1-notif-63.aws.adobess.com A 52.205.134.231 A 52.20.111.22 A 3.213.114.154

Q9)

Question : 1

Answer RRs = 0

Destination Address: 75.75.75.75
▼ User Datagram Protocol, Src Port: 58350, Dst Port: 53
Source Port: 58350
Destination Port: 53
Length: 43
Checksum: 0xc31d [unverified]
[Checksum Status: Unverified]
[Stream index: 1]
> [Timestamps]
UDP payload (35 bytes)
▼ Domain Name System (query)
Transaction ID: 0x3c29
> Flags: 0x0100 Standard query
Questions: 1
Answer RRs: 0
Authority RRs: 0
Additional RRs: 0
▼ Queries
> gaia.cs.umass.edu: type A, class IN
<a href="#">[Response In: 17]</a>

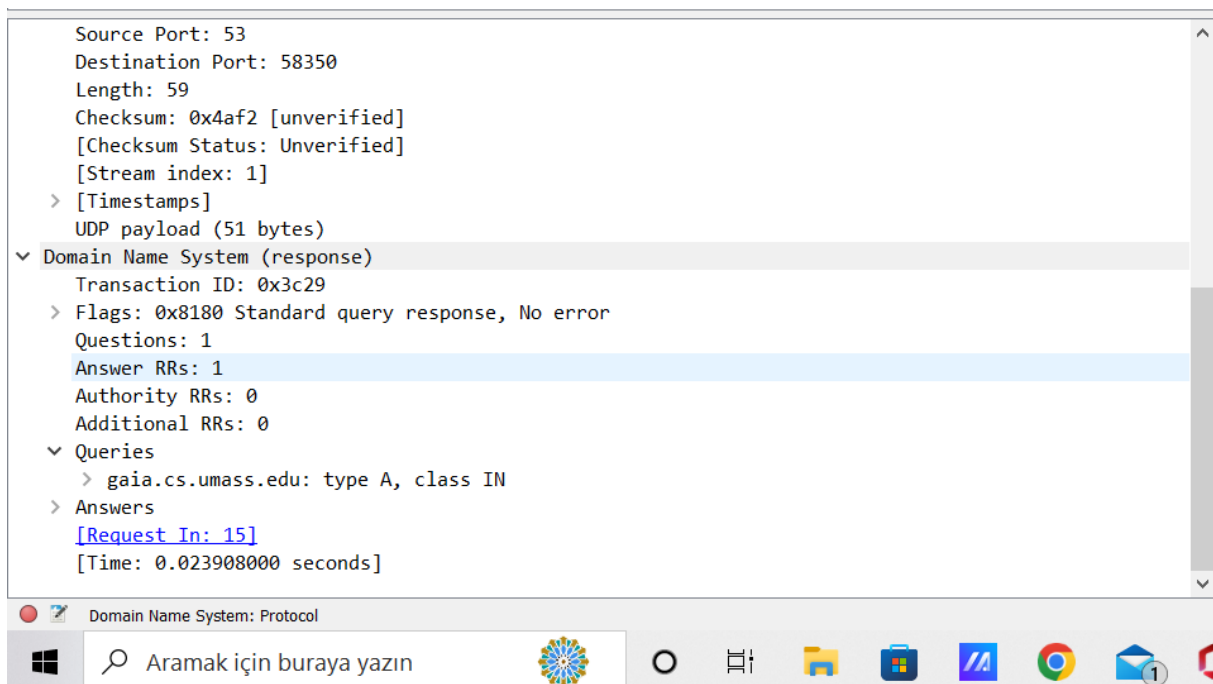
Q10)

Questions : 1

Answer RRs : 1

gaia.cs.umass.edu: type A, class IN

Answers : gaia.cs.umass.edu: type A, class IN, addr 128.119.245.12



Q11)

Packet No : 22

15

17

205

15

Computer cached DNS lookup, So we know the result.

No.	Time	Source	Destination	Protocol	Length	Info
22	3.367054	10.0.0.44	128.119.245.12	HTTP	831	GET /kurose_ross/ HTTP/1.1
28	3.395005	128.119.245.12	10.0.0.44	HTTP	857	HTTP/1.1 200 OK (text/html)
205	3.570142	10.0.0.44	128.119.245.12	HTTP	817	GET /kurose_ross/header_graphic_book_8E_2.jpg HTTP/1.1
516	3.670350	128.119.245.12	10.0.0.44	HTTP	454	HTTP/1.1 200 OK (JPEG JFIF image)
520	3.673776	10.0.0.44	128.119.245.12	HTTP	788	GET /favicon.ico HTTP/1.1
524	3.692288	128.119.245.12	10.0.0.44	HTTP	550	HTTP/1.1 404 Not Found (text/html)

<p>&gt; Frame 22: 831 bytes on wire (6648 bits), 831 bytes captured (6648 bits) on interface en0, id 0</p> <p>&gt; Ethernet II, Src: Apple_98:d9:27 (78:4f:43:98:d9:27), Dst: Maxlinea_80:00:00 (00:50:f1:80:00:00)</p> <p>&gt; Internet Protocol Version 4, Src: 10.0.0.44, Dst: 128.119.245.12</p> <p>0100 .... = Version: 4</p> <p>.... 0101 = Header Length: 20 bytes (5)</p> <p>&gt; Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)</p> <p>Total Length: 817</p> <p>Identification: 0x0000 (0)</p> <p>&gt; 010. .... = Flags: 0x2, Don't fragment</p> <p>...0 0000 0000 0000 = Fragment Offset: 0</p> <p>Time to Live: 64</p> <p>Protocol: TCP (6)</p> <p>Header Checksum: 0xb817 [validation disabled]</p> <p>[Header checksum status: Unverified]</p> <p>Source Address: 10.0.0.44</p> <p>Destination Address: 128.119.245.12</p> <p>&gt; Transmission Control Protocol, Src Port: 62041, Dst Port: 80, Seq: 1, Ack: 1, Len: 765</p> <p>&gt; Hypertext Transfer Protocol</p>	<pre> 0000  00 50 f1 80 00 00 78 4f 43 98 d9 27 08 00 45 00  P....xO C...E- 0010  03 31 00 00 40 00 40 06 b8 17 0a 00 00 2c 80 77  1...@:.....,w 0020  f5 0c f2 59 00 50 3b f1 44 0b e0 a7 f3 57 80 18  ...Y.P; D...W... 0030  08 0a 51 22 00 00 01 01 08 0a 22 3a 27 ef dd aa  --Q'.....":... 0040  4c ad 47 45 54 20 2f 6b 75 72 6f 73 65 5f 72 6f  L GET /kurose_ross/ 0050  73 73 2f 20 48 54 54 50 2f 31 2e 31 0d 0a 48 6f  ss/ HTTP /1.1- Ho 0060  73 74 3a 20 67 61 69 61 2e 63 73 2e 75 6d 61 73  st: gaia .cs.umass 0070  73 2e 65 64 75 0d 0a 55 73 65 72 2d 41 67 65 6e  s.edu..U ser-Agen 0080  74 3a 20 4d 6f 7a 69 6c 6c 61 2f 35 2e 30 20 28  t: Mozil la/5.0 ( 0090  4d 61 63 69 6e 74 6f 73 68 3b 20 49 6e 74 65 6c  Macintos h; Intel 00a0  20 4d 61 63 20 4f 53 20 58 20 31 30 2e 31 35 3b  Mac OS X 10.15; 00b0  20 72 76 3a 38 35 2e 30 29 20 47 65 63 6b 6f 2f  rv:85.0 ) Gecko/ 00c0  32 30 31 30 30 31 30 31 20 46 69 72 65 66 6f 78  /85.0..A ccept: t 00d0  2f 38 35 2e 30 0d 0a 41 63 63 65 70 74 3a 20 74  /85.0..A ccept: t 00e0  65 78 74 2f 68 74 6d 6c 2c 61 70 70 6c 69 63 61  ext/html ,applica 00f0  74 69 6f 6e 2f 78 68 74 6d 6c 2b 78 6d 6c 2c 61  tion/xht ml+xml,a 0100  70 70 6c 69 63 61 74 69 6f 6e 2f 78 6d 6c 3b 71  pplicati on/xml;q 0110  3d 30 2e 39 2c 69 6d 61 67 65 2f 77 65 62 70 2c  =0.9,ima ge/webp, 0120  2a 2f 2a 3b 71 3d 30 2e 38 0d 0a 41 63 63 65 70  /*;q=0. 8- Accep 0130  74 2d 4c 61 6e 67 75 61 67 65 3a 20 65 6e 2d 55  t-Langua ge: en-U 0140  53 2c 65 6e 3b 71 3d 30 2e 35 0d 0a 41 63 63 65  S,en;q=0.5- Acce 0150  70 74 2d 45 6e 63 6f 64 69 6e 67 3a 20 67 7a 69  pt-Encod ing: gzi </pre>
--	---

Q12)

Destination Port : 53

Source Port : 53

The image shows two side-by-side Wireshark capture windows. The left window displays a packet list with four entries (No. 19, 20, 31, 32) and a packet details pane for packet 19. The right window displays a packet list with four entries (No. 19, 20, 31, 32) and a packet details pane for packet 19. Both windows show a DNS query from source 10.0.0.44 to destination 75.75.75.75 on port 53.

No.	Time	Source	Destination
19	6.003804	10.0.0.44	75.75.75.75
20	6.037987	75.75.75.75	10.0.0.44
31	10.494907	10.0.0.44	75.75.75.75
32	10.512877	75.75.75.75	10.0.0.44

Frame 19: 76 bytes on wire (608 bits), 76 bytes captured (608 bits) on interface en0, id 0  
> Ethernet II, Src: Apple\_98:d9:27 (78:4f:43:98:d9:27), Dst: Maxlinea\_80:00:00 (00:50:f1:80:00:00)  
> Internet Protocol Version 4, Src: 10.0.0.44, Dst: 75.75.75.75  
User Datagram Protocol, Src Port: 57837, Dst Port: 53  
Source Port: 57837  
Destination Port: 53  
Length: 42  
Checksum: 0x0677 [unverified]  
[Checksum Status: Unverified]  
[Stream index: 0]  
> [Timestamps]  
UDP payload (34 bytes)  
Domain Name System (query)  
Transaction ID: 0x609b  
> Flags: 0x0100 Standard query  
Questions: 1  
Answer RRs: 0  
Authority RRs: 0  
Additional RRs: 0  
Queries  
www.cs.umass.edu: type A, class IN

Q13)

75.75.75.75 and YES!

The image shows a Wireshark capture window with a packet list and a packet details pane. The packet list shows four entries (No. 19, 20, 31, 32) and the packet details pane shows the details for packet 31. The packet details pane shows a DNS query from source 10.0.0.44 to destination 75.75.75.75 on port 53.

No.	Time	Source	Destination	Protocol	Length	Info
31	10.494907	10.0.0.44	75.75.75.75	DNS	80	Standard query 0x609b
19	6.003804	10.0.0.44	75.75.75.75	DNS	76	Standard query 0x609b
32	10.512877	75.75.75.75	10.0.0.44	DNS	208	Standard query response 0x609b
20	6.037987	75.75.75.75	10.0.0.44	DNS	92	Standard query response 0x609b

Frame 31: 80 bytes on wire (640 bits), 80 bytes captured (640 bits) on interface en0, id 0  
> Ethernet II, Src: Apple\_98:d9:27 (78:4f:43:98:d9:27), Dst: Maxlinea\_80:00:00 (00:50:f1:80:00:00)  
> Internet Protocol Version 4, Src: 10.0.0.44, Dst: 75.75.75.75  
User Datagram Protocol, Src Port: 63789, Dst Port: 53  
Source Port: 63789  
Destination Port: 53  
Length: 46  
Checksum: 0x0078 [unverified]  
[Checksum Status: Unverified]  
[Stream index: 2]  
> [Timestamps]  
UDP payload (38 bytes)  
Domain Name System (query)  
Transaction ID: 0x1462  
> Flags: 0x0100 Standard query  
Questions: 1  
Answer RRs: 0  
Authority RRs: 0  
Additional RRs: 0  
Queries  
cc-api-data.adobe.io: type A, class IN

Q14)

Flags : 0x0100 Standard query

Answer RRs : 0

```

  Domain Name System (query)
    Transaction ID: 0x1462
    Flags: 0x0100 Standard query
      0... .. = Response: Message is a query
      .000 0... .. = Opcode: Standard query (0)
      .... ..0. .... = Truncated: Message is not truncated
      .... ...1 .... = Recursion desired: Do query recursively
      .... ....0... .. = Z: reserved (0)
      .... ....0 .... = Non-authenticated data: Unacceptable
    Questions: 1
    Answer RRs: 0
    Authority RRs: 0
    Additional RRs: 0
    Queries
      cc-api-data.adobe.io: type A, class IN
        Name: cc-api-data.adobe.io
        [Name Length: 20]
        [Label Count: 3]
        Type: A (Host Address) (1)
        Class: IN (0x0001)
\[Response In: 32\]

```

Q15)

Question :1, www.cs.umass.edu: type A, class IN

Answer RRs : 1, www.cs.umass.edu: type A, class IN, addr 128.119.240.84

```

  > [Timestamps]
    UDP payload (50 bytes)
  Domain Name System (response)
    Transaction ID: 0x609b
    > Flags: 0x8180 Standard query response, No error
    Questions: 1
    Answer RRs: 1
    Authority RRs: 0
    Additional RRs: 0
    Queries
      www.cs.umass.edu: type A, class IN
        Name: www.cs.umass.edu
        [Name Length: 16]
        [Label Count: 4]
        Type: A (Host Address) (1)
        Class: IN (0x0001)
    Answers
      > www.cs.umass.edu: type A, class IN, addr 128.119.240.84
\[Request In: 19\]
    [Time: 0.034183000 seconds]

```

Q16)

Destination Address : 75.75.75.75 AND YES!!!1

```
> Frame 13: 69 bytes on wire (552 bits), 69 bytes captured (552 bits) on interface en0, id 0
> Ethernet II, Src: Apple_98:d9:27 (78:4f:43:98:d9:27), Dst: Maxlinea_80:00:00 (00:50:f1:80:00:00)
▼ Internet Protocol Version 4, Src: 10.0.0.44, Dst: 75.75.75.75
    0100 .... = Version: 4
    .... 0101 = Header Length: 20 bytes (5)
    > Differentiated Services Field: 0x00 (DSCP: CS0, ECN: Not-ECT)
        Total Length: 55
        Identification: 0x2d1d (11549)
    > 000. .... = Flags: 0x0
        ...0 0000 0000 0000 = Fragment Offset: 0
        Time to Live: 64
        Protocol: UDP (17)
        Header Checksum: 0xacd7 [validation disabled]
        [Header checksum status: Unverified]
        Source Address: 10.0.0.44
        Destination Address: 75.75.75.75
▼ User Datagram Protocol, Src Port: 59963, Dst Port: 53
    Source Port: 59963
    Destination Port: 53
    Length: 35
    Checksum: 0xbbcc [unverified]
```

Destination Address (in.dst), 4 bytes

Q17)

Questions : 1, umass.edu: type NS, class IN

Answer RRs : 0

```
Checksum: 0xbbcc [unverified]
[Checksum Status: Unverified]
[Stream index: 1]
> [Timestamps]
    UDP payload (27 bytes)
▼ Domain Name System (query)
    Transaction ID: 0x6683
    > Flags: 0x0100 Standard query
        Questions: 1
        Answer RRs: 0
        Authority RRs: 0
        Additional RRs: 0
    ▼ Queries
        ▼ umass.edu: type NS, class IN
            Name: umass.edu
            [Name Length: 9]
            [Label Count: 2]
            Type: NS (authoritative Name Server) (2)
            Class: IN (0x0001)
\[Response In: 14\]
```

Destination Address (ip.dst), 4 bytes



Q18)

Questions : 1

Answers RRs : 3

Answers :

umass.edu: type NS, class IN, ns ns1.umass.edu

umass.edu: type NS, class IN, ns ns3.umass.edu

umass.edu: type NS, class IN, ns ns2.umass.edu

Additional Records :

ns2.umass.edu: type A, class IN, addr 128.119.10.28

ns1.umass.edu: type A, class IN, addr 128.119.10.27

ns3.umass.edu: type A, class IN, addr 128.103.38.68

```
Questions: 1
Answer RRs: 3
Authority RRs: 0
Additional RRs: 3
▼ Queries
  ▼ umass.edu: type NS, class IN
    Name: umass.edu
    [Name Length: 9]
    [Label Count: 2]
    Type: NS (authoritative Name Server) (2)
    Class: IN (0x0001)
  ▼ Answers
    > umass.edu: type NS, class IN, ns ns1.umass.edu
    > umass.edu: type NS, class IN, ns ns3.umass.edu
    > umass.edu: type NS, class IN, ns ns2.umass.edu
  ▼ Additional records
    > ns2.umass.edu: type A, class IN, addr 128.119.10.28
    > ns1.umass.edu: type A, class IN, addr 128.119.10.27
    > ns3.umass.edu: type A, class IN, addr 128.103.38.68
  [Request In: 13]
  [Time: 0.024632000 seconds]
```

Text item (text), 15 bayt

HASAN MERT YALÇIN – 150119647

HW2