National University of Computer & Emerging Sciences, Karachi

Spring -2023 CL3001-Computer Networks Lab 04

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Question 01:

The Age header contains the time in seconds the object was in a proxy cache.

The Expires header specifies when content will expire, or how long content is "fresh." After this time, the Portal Server will always check back with the remote server to see if the content has changed.

Question 02:

- General Header
- Client Request Header
- Server Response Header
- Entity Header

Question 03:

```
HTTP
```

```
File Data: 21 bytes

V HTML Form URL Encoded: application/x-www-form-urlencoded

> Form item: "uname" = "usama"

> Form item: "pass" = "0190"
```

While using HTTP the data is not encrypted, hence we can see that while using the username="usama" and password="0190", it did not encrypt the data.

Below when using HTTPS

```
> Transmission Control Protocol, Src Port: 443, Dst Port: 53855, Seq: 64105, Ack: 2276, Len: 38

V Transport Layer Security

V TLSv1.2 Record Layer: Application Data Protocol: HyperText Transfer Protocol 2

Content Type: Application Data (23)

Version: TLS 1.2 (0x0303)

Length: 33

Encrypted Application Data: 0000000000001040acf2632dd9d4bc90f6ee8ebc77427994f4d1d0224de40c91

[Application Data Protocol: HyperText Transfer Protocol 2]
```

While using HTTPS which has a security layer we cannot see the data which is passed, becausse HTTPS encrypts the data before sending the packets.