## 30 MINUTES NEWLEARNING

## Why Https is secured than http??

Only difference between the two protocols is that HTTPS uses TLS (SSL) to encrypt normal HTTP requests and responses.

In HTTPS ,S stands for secured.In above line I used HTTPS uses TLS to encrypt......

So now I described the reason behind this-

TLS uses a technology called public key encryption:

1.Public Key

2.Private Key

The public key is shared with client devices via the server's SSL certificate.

When a client opens a connection with a server, the two devices use the public and private key to agree on new keys, called session keys, to encrypt further communications between them.

All HTTP requests and responses are then encrypted with these session keys, so that anyone who intercepts communications can only see a random string of characters, not the plaintext.

So this is the reason behind the https more secure than http.

Above I uses TLS and SSL, So what is it?

->TLS is an encryption protocol designed to secure Internet communications.

During a TLS handshake, the two communicating sides exchange messages to acknowledge each other, verify each other, establish the encryption algorithms they will use, and agree on session keys.

->SSL, or Secure Sockets Layer, was the original encryption protocol developed for <u>HTTP</u>. SSL was replaced by TLS, or Transport Layer Security, some time ago. SSL handshakes are now called TLS handshakes, although the "SSL" name is still in wide use.