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Introduction to HTTP and HTTPS

HTTP and HTTPS: The Foundations of Web Communication

DEFINITION

> HTTP (Hypertext Transfer Protocol) is the protocol used for transferring web pages. HTTPS is the secure version, encrypting data for safety.

KEY CONCEPTS

HTTP

A protocol for transferring hypertext requests and information on the internet.

HTTPS

An extension of HTTP that uses SSL/TLS to encrypt data for secure communication.

SSL/TLS

Protocols that provide encryption and secure data transmission over the internet.

Port 80 vs Port 443

HTTP typically uses port 80, while HTTPS uses port 443 for secure connections.

URL Prefixes

Web addresses start with 'http://' for HTTP and 'https://' for HTTPS, indicating security.

EXAMPLES

→ Accessing a website using 'http://example.com'

→ Accessing a secure site using 'https://example.com'

→ Online banking transactions are done over HTTPS for security.

MEMORY TIPS

★ Think of 'S' in HTTPS as 'Secure'.

★ Remember: HTTP is like sending a postcard; HTTPS is like sending a sealed letter.

★ Port 443 is 'safe' for secure connections.

COMMON MISTAKES

✗ Confusing HTTP with HTTPS security features.

✗ Assuming all websites are secure just because they use HTTPS.

✗ Neglecting to check for HTTPS when entering sensitive information.

QUICK RECAP

HTTP is the basic protocol for web communication, while HTTPS adds a layer of security. Always look for HTTPS when sharing sensitive data online.