**Terminology Assignment #1: Application Layer**

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Socket:

A software abstraction that allows applications running on different clients (computers) to communicate with each other over a network.

Sockets provide a standard interface for network communication, allowing data to be sent and received between processes or applications running on different machines. They are widely used in various networked applications, including web browsers, email clients, online games, and many other forms of client-server communication.

HTTP:

A protocol used for transferring and exchanging information on the World Wide Web (WWW).

It is the foundation of data communication on the Internet and serves as the basis for the interaction between web clients and web servers. HTTP defines the rules and conventions for how requests and responses should be formatted and transmitted between clients and servers.

Cookie:

A small piece of data that a web server sends to a user’s web browser when they visit a website. This data is typically stored on the user’s device and is used to remember information about the user, their preferences, or their interactions with the website.

Cookies are essential part of web browsing and are widely used for various purposes, including session management, personalization, tracking, and authentication.

Types of cookies include:

* Session cookies
* Persistent cookies
* First-party cookies
* Third-party cookies

Web cache:

A mechanism that stores copies of frequently accessed web content, such as web pages, images, scripts, and other resources, for quick retrieval.

The primary purpose of a web cache is to improve the efficiency and speed of web browsing by reducing the need to request the same content repeatedly from the original source.

Web caching plays a crucial role in optimizing web performance and reducing the load on web servers. It is a fundamental technique used to enhance the efficiency and responsiveness of web applications and websites, resulting in a better user experience.

Domain Name System (DNS):

A fundamental technology used on the Internet to translate human-friendly domain names into IP addresses. It acts as a distributed and hierarchical system of servers that resolves domain names to their corresponding IP addresses, allowing computers and devices to locate and communication with each other on the Internet.

Domain names are user-friendly, human-readable labels used to identify websites, servers, and resources on the Internet.

e.g. www.example.com

DNS servers are responsible for storing and managing DNS records, which map domain names to their corresponding IP addresses.