# ChatGPT: All properties of a cookie

A cookie in the context of web development has several properties that control its behavior and scope. Here's a comprehensive list of all the properties of a cookie:

**1. name**

* The name of the cookie (key).
* Must be unique within the same path and domain.
* Case-sensitive.

**Example:**

Set-Cookie: username=John

**2. value**

* The value of the cookie.
* Can be any string but must be URL-encoded if it contains special characters.

**Example:**

Set-Cookie: username=JohnDoe

**3. expires**

* Specifies the expiration date and time of the cookie.
* If omitted, the cookie becomes a **session cookie**, deleted when the browser is closed.

**Example:**

Set-Cookie: username=JohnDoe; expires=Wed, 21 Oct 2025 07:28:00 GMT

**4. max-age**

* Specifies the cookie's lifetime in seconds.
* Overrides expires if both are set.
* If max-age=0, the cookie is deleted immediately.

**Example:**

Set-Cookie: username=JohnDoe; max-age=3600

**5. domain**

* Specifies the domain the cookie is available to.
* If omitted, defaults to the origin of the cookie-setting request.
* Subdomains are included if explicitly specified.

**Example:**

Set-Cookie: username=JohnDoe; domain=example.com

**6. path**

* Specifies the URL path that must exist in the requested resource's URL for the cookie to be sent.
* Defaults to the path of the request that set the cookie.

**Example:**

Set-Cookie: username=JohnDoe; path=/account

**7. secure**

* Indicates that the cookie should only be sent over HTTPS connections.
* Prevents cookies from being sent over an unencrypted HTTP connection.

**Example:**

Set-Cookie: username=JohnDoe; Secure

**8. HttpOnly**

* Prevents the cookie from being accessed via JavaScript (e.g., document.cookie).
* Enhances security by mitigating cross-site scripting (XSS) attacks.

**Example:**

Set-Cookie: username=JohnDoe; HttpOnly

**9. SameSite**

* Controls whether the cookie is sent with cross-site requests.
* Possible values:
  + **Strict**: The cookie is sent only for same-origin requests.
  + **Lax**: The cookie is sent with top-level navigation and some GET requests.
  + **None**: The cookie is sent with all cross-origin requests (must be paired with Secure).

**Example:**

Set-Cookie: username=JohnDoe; SameSite=Strict

**10. Priority (Optional, Experimental)**

* Indicates the priority of the cookie when the browser is deciding which cookies to evict.
* Possible values:
  + **Low**
  + **Medium** (default)
  + **High**

**Example:**

Set-Cookie: username=JohnDoe; Priority=High

**11. size (Non-Configurable)**

* Refers to the size of the cookie, which is determined by the name and value combined.
* Browsers typically limit the size of a single cookie to 4096 bytes.

**12. host-only (Implicit)**

* Indicates whether the cookie is restricted to the host that set it (default behavior).

**Summary of Common Cookie Attributes**

| **Property** | **Description** |
| --- | --- |
| name | The key of the cookie. |
| value | The value associated with the key. |
| expires | Expiration date and time. |
| max-age | Lifetime in seconds. |
| domain | Domain the cookie applies to. |
| path | Path the cookie applies to. |
| secure | Send only over HTTPS. |
| HttpOnly | Prevent JavaScript access. |
| SameSite | Controls cross-site cookie behavior. |
| Priority | Sets eviction priority (optional). |

**Examples**

**Basic Cookie:**

Set-Cookie: username=JohnDoe

**Cookie with Attributes:**

Set-Cookie: username=JohnDoe; expires=Wed, 21 Oct 2025 07:28:00 GMT; path=/; domain=example.com; Secure; HttpOnly; SameSite=Strict

Let me know if you'd like further clarification on any of these properties! 😊