[HTTP Caching]

↳ Why we need?

E.g → Simple website having 10 images which hardly change.

* Everytime Browser refresh ⟶ GET rgust for each image. (Bandwidth wastage)

⇓

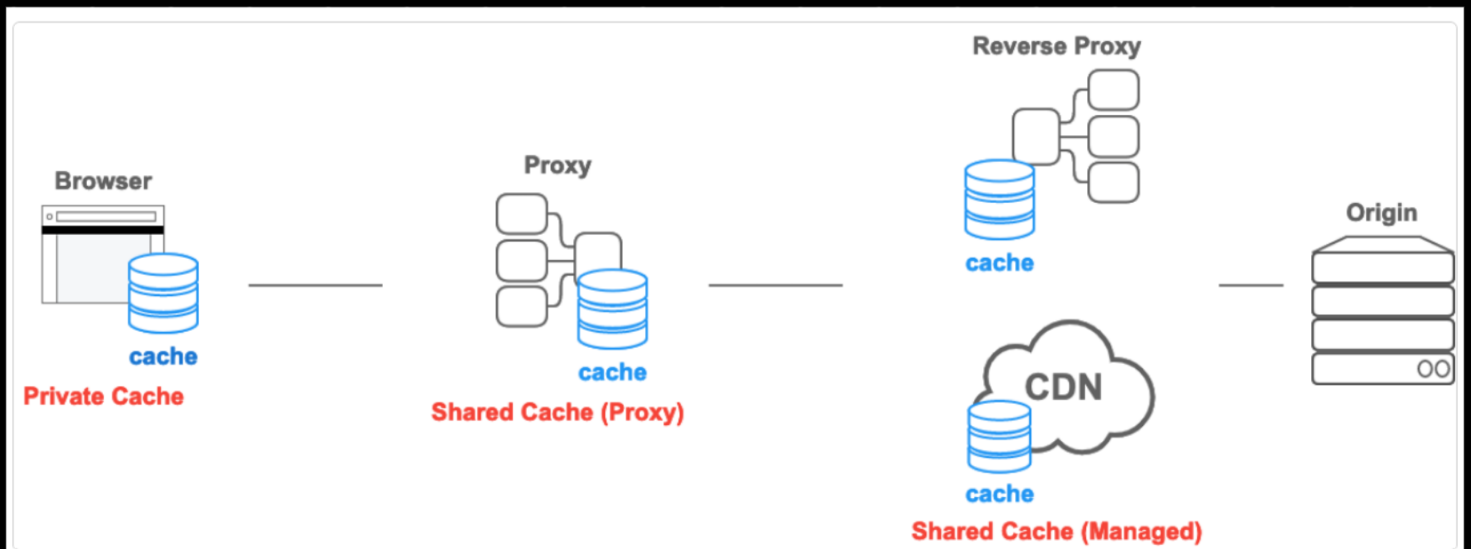What if we have some headers in HTTP which tells browser/client to cache the data?

⇓

Two types

Private   →   Shared Cache

¹
Browser Cache

¹¹
Proxy server, CDN
etc.

Proxy
Caches

Managed
Cache
(CDN)

Browser
cache
Private Cache

Proxy
cache
Shared Cache (Proxy)

Reverse Proxy
cache

CDN
cache
Shared Cache (Managed)

Origin

* [Cache-control header]

① Cache-Control : public → Can be cached by any cache

② Cache-Control : private → Not for shared Cache

③ Cache-Control: no-cache → goes to origin server

④ Cache-Control: no-store → no caching

Best Practices

1. Static Assets:

   - Use `Cache-Control: public, max-age=<large-value>, immutable` for versioned files (e.g., CSS, JS).

2. Dynamic Content:

   - Use `Cache-Control: no-cache` or `private` for user-specific data.

3. Sensitive Data:

   - Use `Cache-Control: no-store` for sensitive or confidential information.

4. CDN Integration:

   - Leverage `s-maxage` for cache settings specific to CDNs.