React Query V5

Client State : information about browser

Ex : user’s choosen language , theme

Server state : information that is store in DB

EX : blog ,

What problem does react query solve ?

React query has maintain a cache on server data

In example : when component need data I doesn’t use axios , fech to use data … it asks react query cache

React query manage Data

When need new data , mean the cached data is staled refetch data

1. Imperatively : invalid data
2. Declaratively : configure how window focus (when to a trigger via stale time) => research more

React query tools

Loading status

Error status

Pagination

Infinite scroll

Prefetching => you can prefetch data put it in cache , if use need app can draw data from the cache (prevent user wait for server response)

Mutation => update data in the server

De-duplicated => my query key if several components on that page request same data React query send data only one

Retry & Error

Callbacks => take actions , if query was successful or failed

General steps to add React query

1. Npm Install @tanstack/react-query
2. Create query client => manage queries and cache
3. Apply query provider => provide cache and client config to children . takes query client as the value
4. Call useQuery (:

Define useQuery , add query key to it by an [‘key’]

Then the fetcher function

Tips : data that is not loaded is undefined

Destructure => isLoading , isError (boolean)

To check the the load

isFetching VS. isLoading

isFetching => mean asynchronous query has’t resolved

isLoading => is subset of isFetching

when we don’t have any cached data

Ex : when we refetch data , the is Loading false and the isFetching is true (get data from cache too)=>search

isError VS. Error

isError => Boolean

Error => the issue

React query dev tools

Just download , and add the dev tool component to you’r project (:

Benefits of dev tools

1. Shows queries by key
2. Status of queries (fresh , fetching , paused , stale , inactive)
3. Data explorer

Tips🡺 dev tool only work in production cause env

On Dev tool box => query key => what exactly we seen ?

1. Data status => stale , fresh ….
2. Last update time ex: 2:30:43 PM
3. Data
4. gcTime
5. dataUpdateCount => how much time refetch
6. status
7. ………..

Stale Data

1. Stale data mean the data is expired , outdate and it’s ready to refetch

2. the data is in the cache

3. data refetch only triggers for stale data mean component remount , window re focues 🡺 Core Concept 🡺 staleTime translate to “max age” , mean how long let the data live , we determine when our data refetch and get freshest data

Tips 🡺 stale time by default is 0 mil

Ex : I set stale time 2000 mean 2 seconds, until 2 seconds my fetched data is fresh , if I re focus or ... the data doesn’t refetch

gcTime

gcTime => mean how long to keep data that might be re-used later

query goes to cold storage if there’s no active useQuery

the cache data expires after that Gc time

mean the gc start when data is no longer being used by a component

Tips 🡺 the GC time is five minutes

After Gc the data is no longer available to react

It like never existed

. Cache contains backup data to display while fetchgin

If fresh and in cache true 🡺 display cached data no refetch

If stale and in cache true 🡺 display cached data , refetch

If not is cache true 🡺 nothing to display during refetch

Issue 🡺 when you click to fetch detail of a product