2023/11/25 15:14 1/3 GraphQL Caching

# **GraphQL Caching**

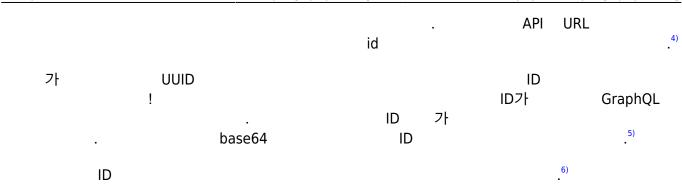
https://graphql.org/learn/caching/

```
가 .<sup>1)</sup>
API HTTP 가 가 가 GraphQL
URL 가 API가 가
```

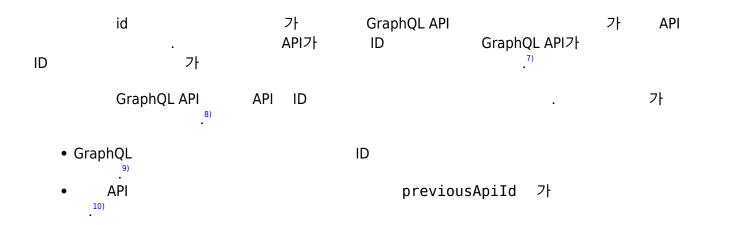
## **Globally Unique IDs**

```
가 가 id
.<sup>3)</sup>
```

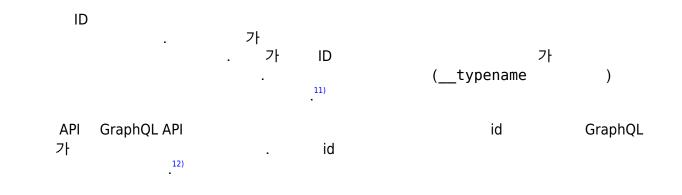
```
{
                                          "data": {
  starship(id:"3003") {
    id
                                            "starship": {
                                              "id": "3003",
    name
                                              "name": "Imperial shuttle"
  droid(id:"2001") {
                                            },
                                            "droid": {
    id
                                              "id": "2001",
    name
                                              "name": "R2-D2",
    friends {
                                              "friends": [
      id
      name
                                                {
                                                  "id": "1000",
    }
                                                  "name": "Luke Skywalker"
  }
}
                                                },
                                                  "id": "1002",
                                                  "name": "Han Solo"
                                                },
                                                  "id": "1003",
                                                  "name": "Leia Organa"
                                                }
                                              ]
                                           }
                                         }
```



### **Compatibility with existing APIs**



#### **Alternatives**



#### **Plugin Backlinks:**

1)

Providing Object Identifiers allows clients to build rich caches

2)

In an endpoint-based API, clients can use HTTP caching to easily avoid refetching resources, and for identifying when two resources are the same. The URL in these APIs is a globally unique identifier that the client can leverage to build a cache. In GraphQL, though, there's no URL-like primitive that provides this globally unique identifier for a given object. It's hence a best practice for the API to expose such an identifier for clients to use.

http://jace.link/ Printed on 2023/11/25 15:14

3)

One possible pattern for this is reserving a field, like id, to be a globally unique identifier. The example schema used throughout these docs uses this approach:

This is a powerful tool to hand to client developers. In the same way that the URLs of a resource-based API provided a globally unique key, the id field in this system provides a globally unique key.

If the backend uses something like UUIDs for identifiers, then exposing this globally unique ID may be very straightforward! If the backend doesn't have a globally unique ID for every object already, the GraphQL layer might have to construct this. Oftentimes, that's as simple as appending the name of the type to the ID and using that as the identifier; the server might then make that ID opaque by base64-encoding it.

6)

Optionally, this ID can then be used to work with the Global Object Identification's node pattern.

One concern with using the id field for this purpose is how a client using the GraphQL API would work with existing APIs. For example, if our existing API accepted a type-specific ID, but our GraphQL API uses globally unique IDs, then using both at once can be tricky.

In these cases, the GraphQL API can expose the previous API's IDs in a separate field. This gives us the best of both worlds:

GraphQL clients can continue to rely on a consistent mechanism for getting a globally unique ID.

Clients that need to work with our previous API can also fetch previousApild from the object, and use that.

11)

While globally unique IDs have proven to be a powerful pattern in the past, they are not the only pattern that can be used, nor are they right for every situation. The really critical functionality that the client needs is the ability to derive a globally unique identifier for their caching. While having the server derive that ID simplifies the client, the client can also derive the identifier. Oftentimes, this would be as simple as combining the type of the object (queried with \_\_\_typename) with some type-unique identifier.

12)

Additionally, if replacing an existing API with a GraphQL API, it may be confusing if all of the fields in GraphQL are the same except id, which changed to be globally unique. This would be another reason why one might choose not to use id as the globally unique field.

From:

http://jace.link/ - Various Ways

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