

22. GraphQL Mutation - login w/ Fragments

[#urql](#)[#graphql](#)[#graphql-codegen](#)[#fragment](#)[#mutation](#)[#frontend](#)

Login mutation shape

- Login mutation looks like below, but we can make it more compact and readable by using fragments

```
mutation Login($usernameOrEmail: String!, $password: String!) {  
  login(usernameOrEmail: $usernameOrEmail, password: $password) {  
    errors {  
      field  
      message  
    }  
    user {  
      id  
      username  
    }  
  }  
}
```

- Fragment is a GraphQL thing. The idea of fragments is quite simple.
- Here we implement the fragments **based on ObjectTypes** that are already defined in the server code:
 - **FieldError** and **UserResponse** are **ObjectTypes** defined in **user.ts** resolver ([9. Resolver - user.ts / Mutation - login\(\)](#))
 - **User** is an **ObjectType** defined in **User.ts** entity ([7. Entity - User.ts](#))
- We implement the following files:

/graphql/fragments/RegularError.graphql

```
fragment RegularError on FieldError {  
  field  
  message  
}
```

/graphql/fragments/RegularUser.graphql/

```
fragment RegularUser on User {  
  id  
  username  
}
```

- Use these two fragments to implement another fragment that combines them

/graphql/fragments/RegularUserResponse.graphql

```
fragment RegularUserResponse on UserResponse {  
  errors {  
    ...RegularError  
  }  
  user {  
    ...RegularUser  
  }  
}
```

Add login mutation

- Now use the `RegularUserResponse` fragment to implement the `Login mutation`

/graphql/mutations/login.graphql

```
mutation Login($usernameOrEmail: String!, $password: String!) {  
  login(usernameOrEmail: $usernameOrEmail, password: $password) {  
    ...RegularUserResponse  
  }  
}
```

- Run codegen to generate the `TypeScript` code for `graphql`

```
yarn gen
```

- Now we have the `useLoginMutation()` hook in `generated/graphql.tsx` that we can use

generated/graphql.tsx

```
export function useLoginMutation() {  
  return Urql.useMutation<LoginMutation, LoginMutationVariables>(LoginDocument);  
};
```