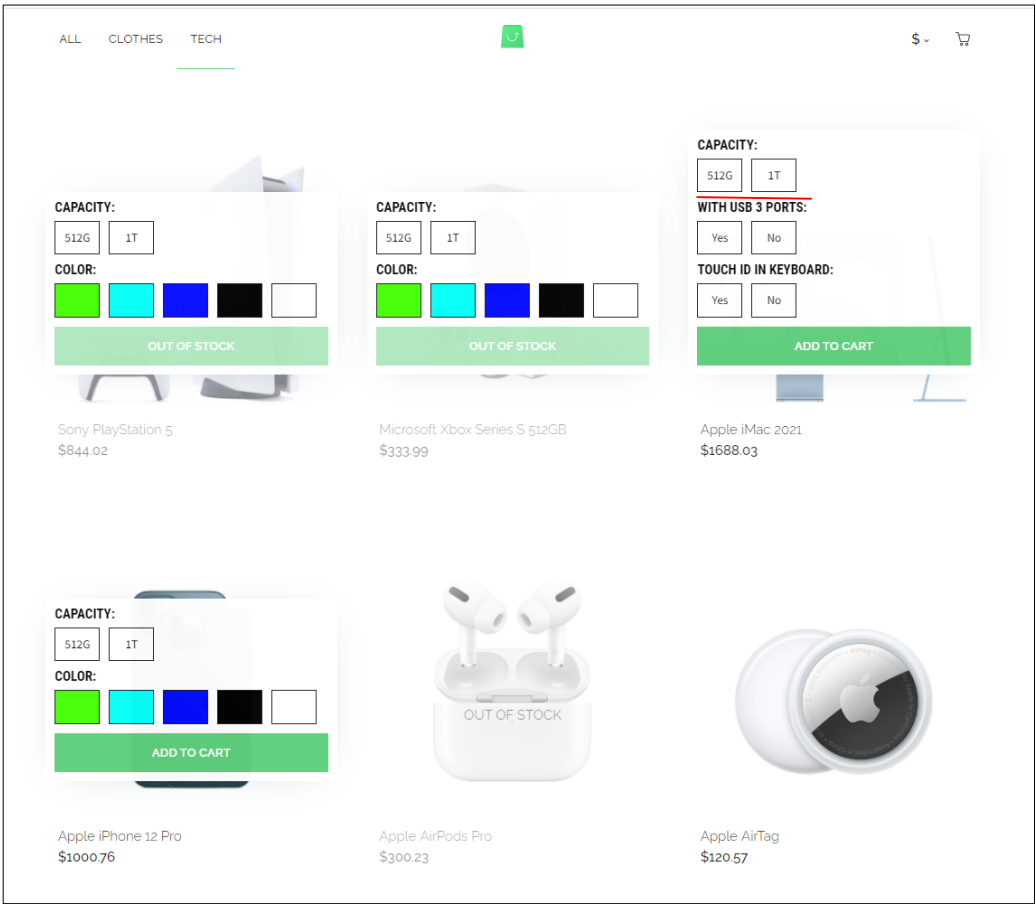
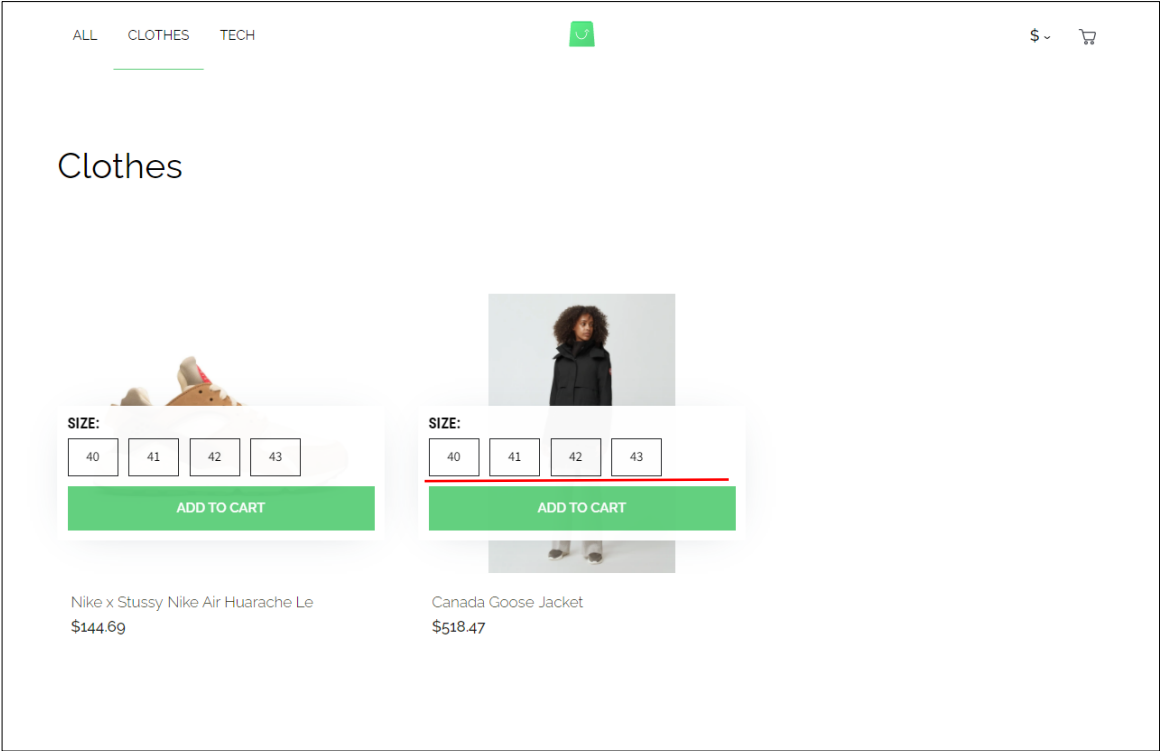
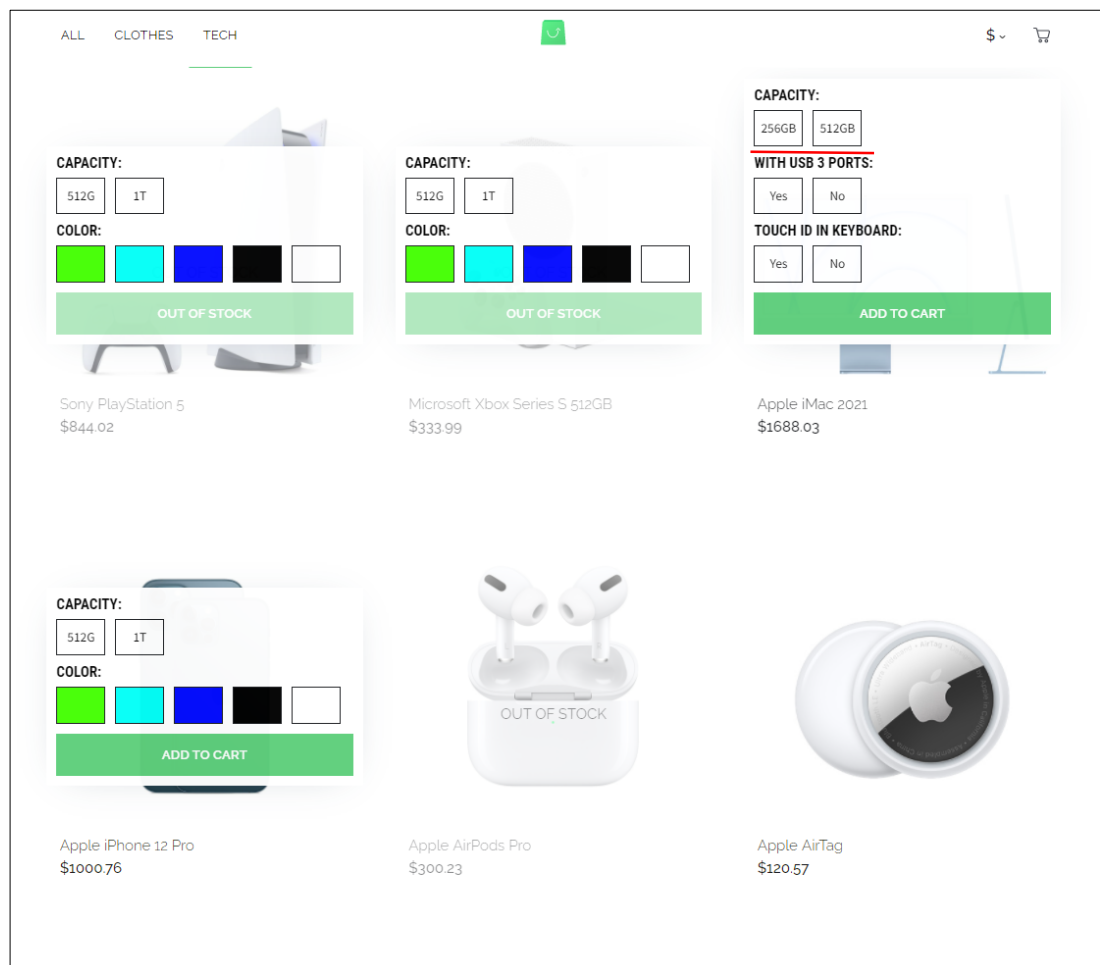
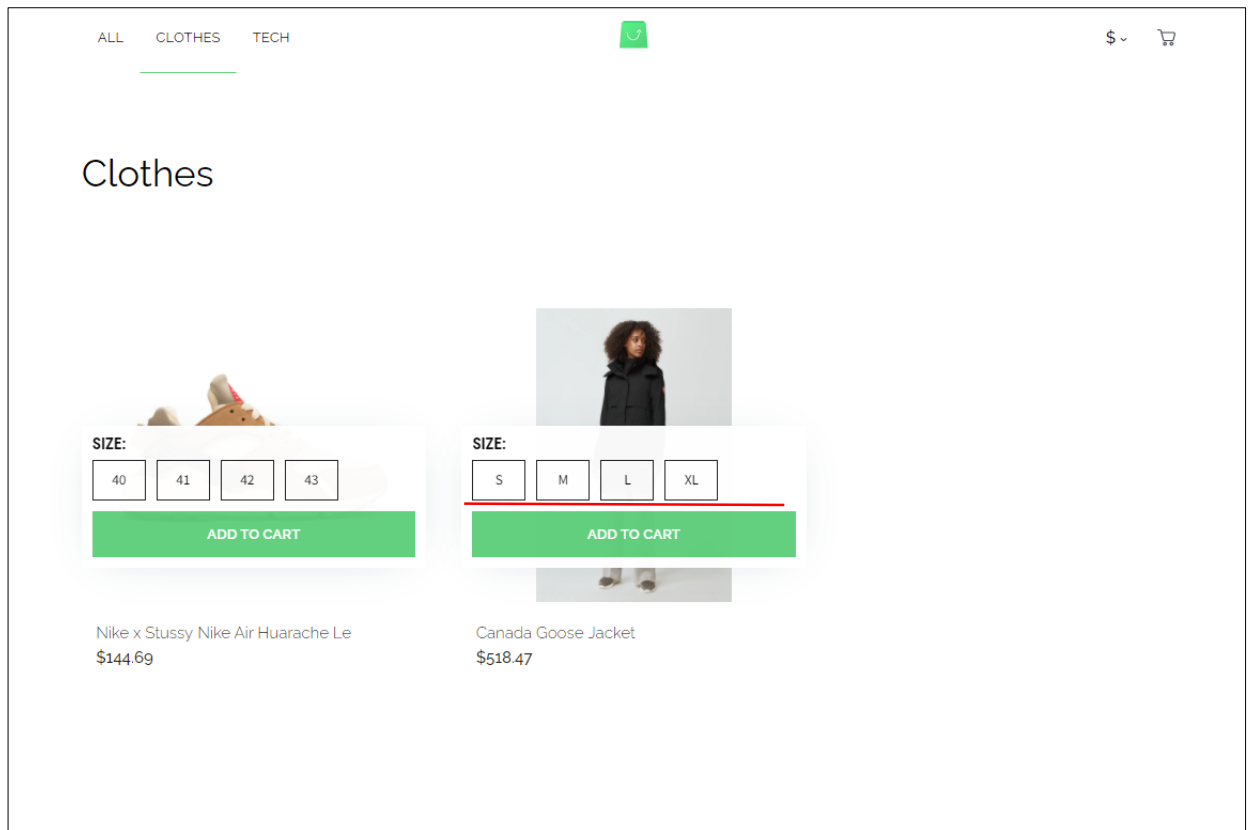


While I was working on fixing the assignment, an error was found in the code of endpoint-server. But, of course, that may be the intention. However, I decided to share with you what was found.

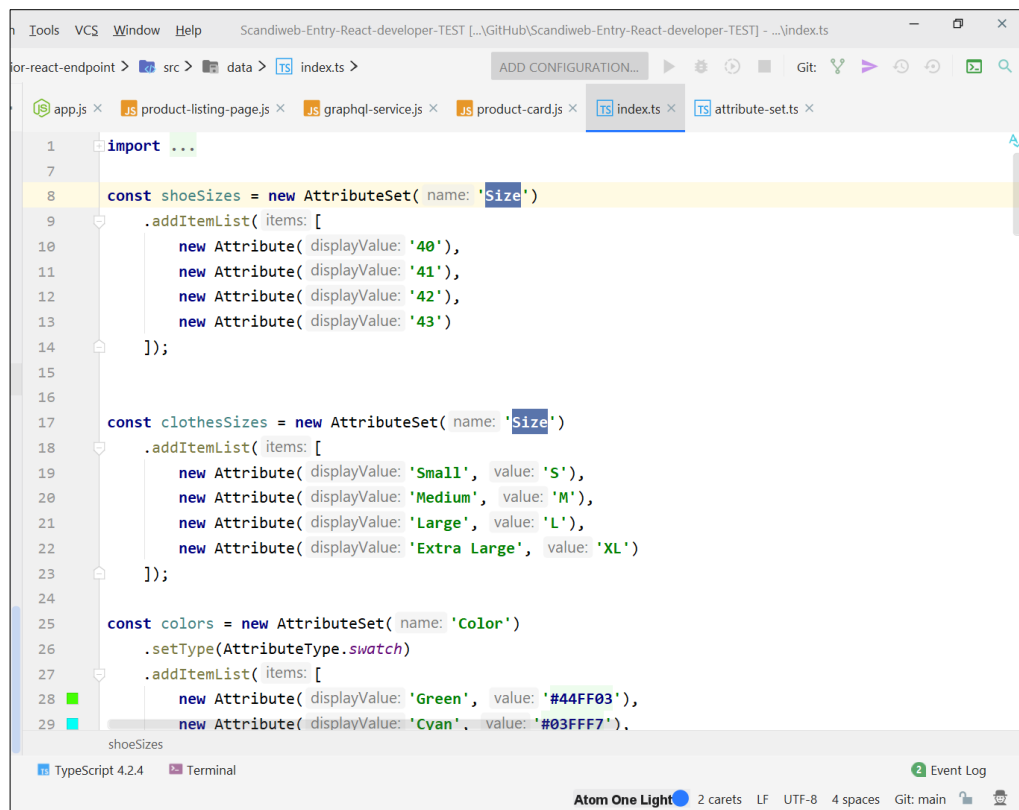
If use ApolloClient by default to get data of category products we will have such result. It's about product attributes with the same Id (name).



But attributes should be like this:

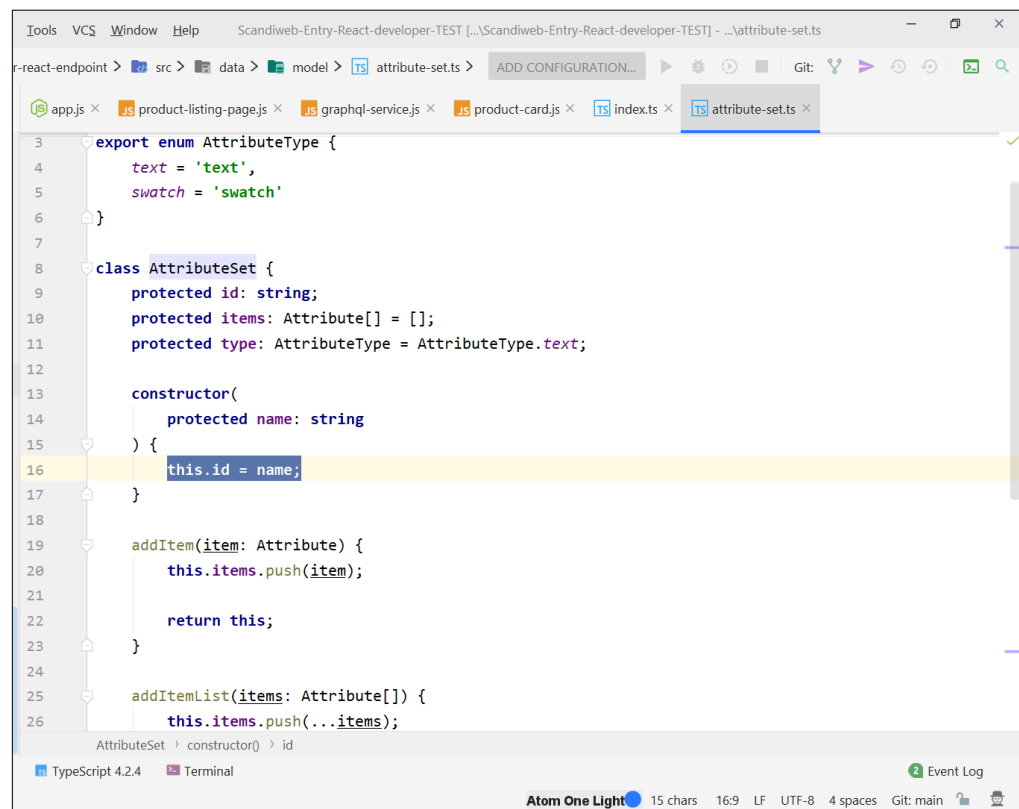


This happens because Apollo's algorithm for optimization saves in the cache data with the same __typename and id as the same. Despite the content.



The screenshot shows a VS Code editor window with the file `index.ts` open. The code defines three `AttributeSet` instances: `shoeSizes`, `clothesSizes`, and `colors`. Each instance is created with a specific name and a list of attributes. The `shoeSizes` instance has attributes with display values '40', '41', '42', and '43'. The `clothesSizes` instance has attributes with display values 'Small', 'Medium', 'Large', and 'Extra Large', each with a corresponding value ('S', 'M', 'L', 'XL'). The `colors` instance has attributes with display values 'Green' and 'Cyan', each with a corresponding hex value ('#44FF03', '#03FFF7'). The code is written in TypeScript 4.2.4.

```
1 import ...
7
8 const shoeSizes = new AttributeSet( name: 'Size')
9   .addItemList( items: [
10     new Attribute( displayValue: '40'),
11     new Attribute( displayValue: '41'),
12     new Attribute( displayValue: '42'),
13     new Attribute( displayValue: '43')
14   ]);
15
16
17 const clothesSizes = new AttributeSet( name: 'Size')
18   .addItemList( items: [
19     new Attribute( displayValue: 'Small', value: 'S'),
20     new Attribute( displayValue: 'Medium', value: 'M'),
21     new Attribute( displayValue: 'Large', value: 'L'),
22     new Attribute( displayValue: 'Extra Large', value: 'XL')
23   ]);
24
25 const colors = new AttributeSet( name: 'Color')
26   .setType(AttributeType.swatch)
27   .addItemList( items: [
28     new Attribute( displayValue: 'Green', value: '#44FF03'),
29     new Attribute( displayValue: 'Cyan', value: '#03FFF7'),
30   ]);
```



The screenshot shows a VS Code editor window with the file `attribute-set.ts` open. The code defines an `AttributeType` enum and an `AttributeSet` class. The `AttributeType` enum has two values: `text` and `swatch`. The `AttributeSet` class has a protected `id` property, a protected `items` array, and a protected `type` property. The constructor takes a `name` parameter and sets `this.id = name`. The `addItem` method takes an `item` and pushes it to `this.items`. The `addItemList` method takes an array of `items` and pushes them to `this.items`.

```
3 export enum AttributeType {
4   text = 'text',
5   swatch = 'swatch'
6 }
7
8 class AttributeSet {
9   protected id: string;
10  protected items: Attribute[] = [];
11  protected type: AttributeType = AttributeType.text;
12
13  constructor(
14    protected name: string
15  ) {
16    this.id = name;
17  }
18
19  addItem(item: Attribute) {
20    this.items.push(item);
21
22    return this;
23  }
24
25  addItemList(items: Attribute[]) {
26    this.items.push(...items);
```

```
Tools VCS Window Help Scandiweb-Entry-React-developer-TEST [...\GitHub\Scandiweb-Entry-React-developer-TEST] - ...\index.ts
or-react-endpoint > src > data > TS index.ts > ADD CONFIGURATION... Git:
app.js x JS product-listing-page.js x JS graphql-service.js x JS product-card.js x TS index.ts x TS attribute-set.ts x

106 .addAttributeSet(capacity)
107 .setDescription(xboxDescription)
108 .setCategory(Category.tech),
109
110 new Product( name: 'iMac 2021')
111 .setId('apple-imac-2021')
112 .setPrice(1400)
113 .setBrand('Apple')
114 .addImages( urls: [
115   'https://store.storeimages.cdn-apple.com/4982/as-images.apple.com/is/imac-24-blue-selection
116 ])
117 .addAttributeSet(new AttributeSet( name: 'Capacity')
118   .addItem(new Attribute( displayValue: '256GB'))
119   .addItem(new Attribute( displayValue: '512GB'))
120 )
121 .setDescription('The new iMac!')
122 .addAttributeSet(new AttributeSet( name: 'With USB 3 ports').addItemList(yesNo))
123 .addAttributeSet(new AttributeSet( name: 'Touch ID in keyboard').addItemList(yesNo))
124 .setCategory(Category.tech),
125
126 new Product( name: 'iPhone 12 Pro')
127 .setId('apple-iphone-12-pro')
128 .setPrice(830)
129 .setBrand('Apple')
130 ]
products
TypeScript 4.2.4 Terminal Event Log
Atom One Light 135 chars, 2 line breaks 117:9 LF UTF-8 4 spaces Git: main
```

```
Tools VCS Window Help Scandiweb-Entry-React-developer-TEST [...\GitHub\Scandiweb-Entry-React-developer-TEST] - ...\index.ts
or-react-endpoint > src > data > TS index.ts > ADD CONFIGURATION... Git:
app.js x JS product-listing-page.js x JS graphql-service.js x JS product-card.js x TS index.ts x TS attribute-set.ts x

27 .addItemList( items: [
28   new Attribute( displayValue: 'Green', value: '#44FF03'),
29   new Attribute( displayValue: 'Cyan', value: '#03FFF7'),
30   new Attribute( displayValue: 'Blue', value: '#030BFF'),
31   new Attribute( displayValue: 'Black', value: '#000000'),
32   new Attribute( displayValue: 'White', value: '#FFFFFF')
33 ]);
34
35 const yesNo = [new Attribute( displayValue: 'Yes'), new Attribute( displayValue: 'No')];
36
37 const capacity = new AttributeSet( name: 'Capacity')
38   .addItemList( items: [
39     new Attribute( displayValue: '512G'),
40     new Attribute( displayValue: '1T')
41   ]);
42
43 const products: Product[] = [
44   new Product( name: 'Nike Air Huarache Le')
45     .setId('huarache-x-stussy-le')
46     .setPrice(120)
47     .setDescription('<p>Great sneakers for everyday use!</p>')
48     .addImages( urls: [
49       'https://cdn.shopify.com/s/files/1/0087/6193/3920/products/DD1381200_DEOA_2_720x.jpg?v=161
50       'https://cdn.shopify.com/s/files/1/0087/6193/3920/products/DD1381200_DEOA_1_720x.jpg?v=161
51     ])
52 ];
TypeScript 4.2.4 Terminal Event Log
Atom One Light 131 chars, 4 line breaks 37:1 LF UTF-8 4 spaces Git: main
```

I see 3 ways to solve the problem:

1. Rename attributes with the same names on the server.
("Size" to "Size-clothes" for clothes and "Capacity" to "Capacity-iMac" for iMac) for example.
Identifier for different data must be unique.
2. Set manually the algorithm for naming the same data in Apollo properties to cache them.
3. Disable cache usage.

I chose the third option, although the first would be the most optimal. Because the second is probably not appropriate here. I think.