애플리케이션 테스트 수행

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작성일 : 2024.10.016

product CRUD

```javascript
const mongoose = require("mongoose");
const Schema = mongoose.Schema;
const productSchema = Schema(
    {
        sku : {type:String, required:true, unique:true},
        name : {type:String, required:true},
        size : {type:String, required:true, default: 'Medium'},
        image : {type:String, required:true},
        category: {type:Array, required:true},
        description : {type:String, required:true},
        price:{type:Number, required:true},
        stock: {type:Object, required:true},
        status : {type:String, default:"active"},
        isDeleted : {type:Boolean, default:false} , //상품을 실제 삭제하는것이 아니라 상품이 삭제 되었
    },
{timestamps:true}
);

productSchema.methods.toJSON = function(){
    const obj = this._doc;
    delete obj.updateAt;
    return obj;
}

const Product = mongoose.model("Product",productSchema);
module.exports = Product;
```

```javascript
productController.getProducts=async(req,res)=>{
    try{
        const {page,name} = req.query;
        const cond = name?{name:{$regex:name,$options:"i"},isDeleted: false}:{isDeleted: false};
        let query = Product.find(cond);
        let response = {status:"success"};
        if(page){
            query.skip((page-1) * PAGE_SIZE).limit(PAGE_SIZE);
            //최종 몇개 페이지
            //데이터가 총 몇개있는지
            const totalItemNum = await Product.countDocuments(cond);    //Product.find(cond).count()cour
            //데이터 총 개수 /PAGE_SIZE
            const totalPageNum = Math.ceil(totalItemNum/PAGE_SIZE);
            response.totalPageNum=totalPageNum;
        }
        const productList = await query.exec();
        response.data= productList;

        // const products = await Product.find({});
        res.status(200).json(response);
    }catch(error){
        res.status(400).json({status: "fail", error:error.message});
    }
};

// 실제 삭제 로직
productController.deleteProduct = async (req, res) => {
    try {
        const productId = req.params.id;
        const product = await Product.findByIdAndUpdate(
            { _id: productId },
            { isDeleted: true }
        );
        if (!product) throw new Error("No item found");
        res.status(200).json({ status: "success" });
    } catch (error) {
        return res.status(400).json({ status: "fail", error: error.message });
    }
};
```

```javascript
productController.updateProduct=async(req,res)=>{
    try{
        const productId =req.params.id;
        const {
            sku,
            name,
            size,
            image,
            category,
            description,
            price,
            stock,
            status ,
        } = req.body;

        const product = await Product.findByIdAndUpdate({_id:productId},
            {
                sku,
                name,
                size,
                image,
                category,
                description,
                price,
                stock,
                status ,
            },
            {new : true}
        );
        if(!product)
            throw new Error ("상품이 존재하지 않습니다!!");
        res.status(200).json({status:"success",data:product});
    }catch(error){
        res.status(400).json({status: "fail", error:error.message});
    }
};
```

Create (POST 요청)

POST | http://localhost:5000/api/product | Send

Params Authorization Headers (10) Body ● Pre-request Script Tests Settings Cookies

● none ● form-data ● x-www-form-urlencoded ● raw ● binary JSON ⌄ Beautify

```
12
13      "sku": "TEST-1",
14      "name" : "새상vna",
15      "size:":["S","M"] ,
16      "image" : "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
17      "category" : ["top"],
18      "description" :"this",
19      "price" : "15000",
20      "stock" : {"s":5, "M":5},
21      "status" : "active"
22
```

Body Cookies Headers (8) Test Results

Status: 200 OK Time: 8 ms Size: 665 B Save Response ⌄

Pretty Raw Preview Visualize JSON ⌄

```
1    [
2        "status": "success",
3        "product": {
4            "sku": "TEST-1",
5            "name": "새상vna",
6            "size": "Medium",
7            "image": "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
8            "category": [
9                "top"
10           ],
11           "description": "this",
12           "price": 15000,
13           "stock": {
14               "s": 5,
15               "M": 5
16           },
17           "status": "active",
18           "isDeleted": false,
19           "_id": "6762705ae996d9867411ba55",
20           "createdAt": "2024-12-18T06:48:58.915Z",
21           "updatedAt": "2024-12-18T06:48:58.915Z",
22           "__v": 0
```

Compass ⚙

{} My Queries

CONNECTIONS (3) ⤬ + ⋯

Search connections ▼

▸ 🖴 cluster0.8jg6r.mongodb.net
▸ 🖴 cluster0.8jg6r.mongodb.net
▾ 🖥 localhost:27017 + ⋗ ⋯
  ▸ 🛢 admin
  ▸ 🛢 config
  ▸ 🛢 firstDB
  ▸ 🛢 local
  ▸ 🛢 mydatabase
  ▾ 🛢 shopping-mall
    ◼ carts
    ◼ orders
    ◼ products ⋯
    ◼ users
  ▸ 🛢 toto-demo

◼ users   ◼ products   ✛

localhost:27017 > shopping-mall > products   >_ Open Mo

Documents 16   Aggregations   Schema   Indexes 2   Validation

🕐 ▾   Type a query: { field: 'value' } or **Generate query** ✛   [Explain] [Reset] [**Find**] [</>]

● ADD DATA ▾   ☒ EXPORT DATA ▾   ✎ UPDATE   🗑 DELETE   25 ▾ 1 – 16 of 16 ⟳ ‹ › ☰

```
sku : "vusizs"
name : "홍길동"
size : "Medium"
image : "https://res.cloudinary.com/dutitgfic/image/upload/v1734424602/ghrovwii…"
▸ category : Array (1)
description : "asqqq"
price : 4000
▸ stock : Object
status : "active"
isDeleted : true
createdAt : 2024-12-17T08:37:32.727+00:00
updatedAt : 2024-12-17T08:38:32.727+00:00
__v : 0
```

db에 내용확인

```
_id: ObjectId('6762705ae996d9867411ba55')
sku : "TEST-1"
name : "새상vna"
size : "Medium"
image : "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.g…"
▸ category : Array (1)
description : "this"
price : 15000
▸ stock : Object
status : "active"
isDeleted : false
createdAt : 2024-12-18T06:48:58.915+00:00
updatedAt : 2024-12-18T06:48:58.915+00:00
__v : 0
```

Read (GET 요청)

Key	Value	Bulk Edit
☑ Authorization	Bearer eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJfaWQiOiI2NzYyNmE2NWU5OTZkOTg2NzQxMWJhNDEiLCJpYXQiOjE3MzQ1MDMxOTMsImV4cCI6MTczNDU4OTU5M30.OzDZ9-6Nisl831dlEXdU40lULEHMhX66PV3P3_zhqL0	
☐ Content-Type		
Key	Value	

GET ∨ http://localhost:5000/api/product | Send ∨

Params Authorization Headers (10) Body ● Pre-request Script Tests Settings Cookies

● none ● form-data ● x-www-form-urlencoded ● raw ● binary JSON ∨ Beautify

```
12
13      "sku": "TEST-1",
14      "name" : "새상vna",
15      "size":["S","M"] ,
16      "image" : "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
17      "category" : ["top"],
18      "description" :"this",
19      "price": "15000",
20      "stock" : {"s":5, "M":5},
21      "status" : "active"
```

ody Cookies Headers (8) Test Results   ⊕ Status: 200 OK Time: 5 ms Size: 4.85 KB Save Response ∨

Pretty Raw Preview Visualize JSON ∨ ⇄

```
176     {
177          "_id": "6762705ae996d9867411ba55",
178          "sku": "TEST-1",
179          "name": "새상vna",
180          "size": "Medium",
181          "image": "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
182          "category": [
183               "top"
184          ],
185          "description": "this",
186          "price": 15000,
187          "stock": {
188               "s": 5,
189               "M": 5
190          },
191          "status": "active",
192          "isDeleted": false,
193          "createdAt": "2024-12-18T06:48:58.915Z",
194          "updatedAt": "2024-12-18T06:48:58.915Z",
195          "__v": 0
196     }
197
198     }
```
내용확인

Update (PUT 요청)

GET `http://localhost:5000/api/product/6762705ae996d9867411ba55`   **Send**

Params   Authorization   Headers (10)   Body •   Pre-request Script   Tests   Settings   Cookie

● none   ● form-data   ● x-www-form-urlencoded   ● raw   ● binary   JSON ⌄   Beautify

```
12
13     "sku": "TEST-1",
14     "name" : "변경된상품품품",
15     "size":["S","M"] ,
16     "image" : "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
17     "category" : ["top"],
18     "description" :"this",
19     "price": "10000",
20     "stock" : {"s":1, "M":1},
21     "status" : "active"
```

Body   Cookies   Headers (8)   Test Results   🌐 Status: 200 OK   Time: 5 ms   Size: 4.85 KB   **Save Response**

Pretty   Raw   Preview   Visualize   JSON ⌄

```
176    {
177        "_id": "6762705ae996d9867411ba55",
178        "sku": "TEST-1",
179        "name": "새상vna",
180        "size": "Medium",
181        "image": "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
182        "category": [
183            "top"
184        ],
185        "description": "this",
186        "price": 15000,
187        "stock": {
188            "s": 5,
189            "M": 5
190        },
191        "status": "active",
192        "isDeleted": false,
193        "createdAt": "2024-12-18T06:48:58.915Z",
194        "updatedAt": "2024-12-18T06:48:58.915Z",
195        "__v": 0
196    }
197    ]
198 }
```

적용되기전

PUT ∨ | http://localhost:5000/api/product/6762705ae996d9867411ba55 | **Send** ∨

Params Authorization Headers (10) Body ● Pre-request Script Tests Settings **Cookies**

● none ● form-data ● x-www-form-urlencoded ● raw ● binary **JSON** ∨ **Beautify**

```
12
13      "sku": "TEST-1",
14      "name" : "변경된상품품품",
15      "size":["S","M"] ,
16      "image" : "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
17      "category" : ["top"],
18      "description" :"this",
19      "price": "10000",
20      "stock" : {"s":1, "M":1},
21      "status" : "active"
```

Body Cookies Headers (8) Test Results   🌐 Status: 200 OK Time: 9 ms Size: 674 B **Save Response** ∨

Pretty Raw Preview Visualize JSON ∨ 🔽

```
1   {
2       "status": "success",
3       "data": {
4           "_id": "6762705ae996d9867411ba55",
5           "sku": "TEST-1",
6           "name": "변경된상품품품",
7           "size": "Medium",
8           "image": "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
9           "category": [
10              "top"
11          ],
12          "description": "this",
13          "price": 10000,
14          "stock": {
15              "s": 1,
16              "M": 1
17          },                              변경후
18          "status": "active",
19          "isDeleted": false,
20          "createdAt": "2024-12-18T06:48:58.915Z",
21          "updatedAt": "2024-12-18T06:59:34.087Z",
22          "__v": 0
```

localhost:27017 > shopping-mall > products   >_ Open Mor

Documents 16   Aggregations   Schema   Indexes 2   Validation

🕐 ▾   Type a query: { field: 'value' } or **Generate query** ✛   Explain   Reset   Find ◁▷

⊕ ADD DATA ▾   ✉ EXPORT DATA ▾   ✎ UPDATE   🗑 DELETE   25 ▾   1 – 16 of 16 ↻ ‹ › ☰

```
sku : "VUS123"
name : "홍길동"
size : "Medium"
image : "https://res.cloudinary.com/dutitgfic/image/upload/v1734424602/ghrovwii…"
▸ category : Array (1)
description : "asqqq"
price : 4000
▸ stock : Object
status : "active"
isDeleted : true
createdAt : 2024-12-17T08:37:32.727+00:00
updatedAt : 2024-12-17T08:38:32.727+00:00
__v : 0
```

```
_id: ObjectId('6762705ae996d9867411ba55')
sku : "TEST-1"
name : "변경된상품품품"
size : "Medium"
image : "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.g…"
▸ category : Array (1)
description : "this"
price : 10000
▸ stock : Object
status : "active"
isDeleted : false
createdAt : 2024-12-18T06:48:58.915+00:00
updatedAt : 2024-12-18T06:59:34.087+00:00
__v : 0
```

변경된 상품

Delete (DELETE 요청)

DELETE ▼ http://localhost:5000/api/product/6762705ae996d9867411ba55 **Send** ▼

Params | Authorization | Headers (10) | Body ● | Pre-request Script | Tests | Settings | Cookies

○ none | ○ form-data | ○ x-www-form-urlencoded | ● raw | ○ binary | JSON ▼ | Beautify

```
12
13      "sku": "TEST-1",
14      "name" : "변경된상품품품",
15      "size:":["S","M"] ,
16      "image" : "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
17      "category" : ["top"],
18      "description" :"this",
19      "price": "10000",
20      "stock" : {"s":1, "M":1},
21      "status" : "active"
```

Body | Cookies | Headers (8) | Test Results   ⊕ Status: 200 OK Time: 8 ms Size: 287 B   Save Response ▼

Pretty | Raw | Preview | Visualize | JSON ▼ | ⇥

```
1   {
2       "status": "success"
3   }
```

localhost:27017 > shopping-mall > products

Documents 15   Aggregations   Schema   Indexes 2   Validation

🕐 ▼   Type a query: { field: 'value' } or **Generate query** ✦   [Explain]

[➕ ADD DATA ▼] [↗ EXPORT DATA ▼] [✏ UPDATE] [🗑 DELETE]   [25 ▼] 1 – 15 o
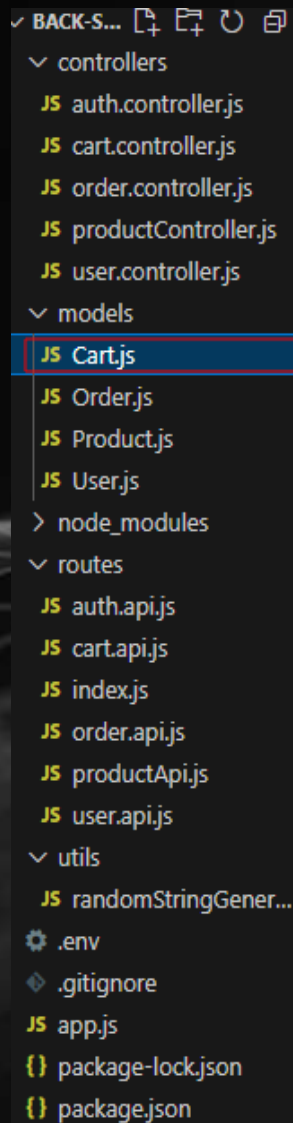
```
      name : "2342342"
      size : "Medium"
      image : "https://res.cloudinary.com/dutitgfic/video/upload/v1734422768/wlzjlk2n…"
    ▸ category : Array (1)
      description : "14124124124"
      price : 1000
    ▸ stock : Object
      status : "active"
      isDeleted : true
      createdAt : 2024-12-17T08:06:43.107+00:00
      updatedAt : 2024-12-17T08:07:01.354+00:00
      __v : 0


      _id: ObjectId('6761384c54159da18b83d5a2')
      sku : "vds123"
      name : "홍길동"
      size : "Medium"
      image : "https://res.cloudinary.com/dutitgfic/image/upload/v1734424602/ghrovwii…"
    ▸ category : Array (1)
      description : "asqqq"
      price : 4000
    ▸ stock : Object
      status : "active"
      isDeleted : true
      createdAt : 2024-12-17T08:37:32.727+00:00          상품이   없어지고 상위 목록나옴
      updatedAt : 2024-12-17T08:38:32.727+00:00
      __v : 0
```

cart CRUD

BACK-S...

controllers
- auth.controller.js
- cart.controller.js
- order.controller.js
- productController.js
- user.controller.js

models
- Cart.js
- Order.js
- Product.js
- User.js

node_modules

routes
- auth.api.js
- cart.api.js
- index.js
- order.api.js
- productApi.js
- user.api.js

utils
- randomStringGener...
- .env
- .gitignore
- app.js
- package-lock.json
- package.json

```javascript
const User = require("./User");
const Product = require("./Product");
const mongoose = require("mongoose");
const Schema = mongoose.Schema;
const cartSchema = Schema(
    {
        userId : {type: mongoose.ObjectId, ref:User}, //외래키값
        items : [
            {
            productId : {type:mongoose.ObjectId,ref:Product},
            size: {type:String, required:true},
            qty:{type:Number, default:1, required:true},
            },
        ],
    },
{timestamps:true}
);

cartSchema.methods.toJSON = function(){
    const obj = this._doc;
    delete obj.updateAt;
    return obj;
}

const Cart = mongoose.model("Cart",cartSchema);
module.exports = Cart;
```

```javascript
cartController.addItemToCart = async(req,res)=>{
    try{
        const {userId} = req;
        const {productId,size,qty} = req.body;
        //유저값을 가지고 카트찾기
        let cart = await Cart.findOne({userId});

        if(!cart){
            //유저가 만든 카트가 없으면 만들기
            cart = new Cart({userId});
            await cart.save();
        }
        //이미카트에 들어가있는 아이템있는지?
        const existItem = cart.items.find(
            (item)=>item.productId.equals(productId) && item.size === size);    // moogoose.ObjEti없음
        //그렇다면 에러러
        if(existItem){
            throw new Error("아이템이 이미 카트에 담겨있습니다!!");
        }
        //카드에 아이템 추가가
        cart.items = [...cart.items,{productId,size,qty}];
        await cart.save();

        res.status(200).json({ status: "success", data:cart, cartItemQty: cart.items.length });

    }catch(error){
        return res.status(400).json({ status: "fail", error: error.message });
    }
};

cartController.getCart= async(req,res)=>{
    try{
        const {userId} =req;
        const cart =await Cart.findOne({userId}).populate({
            path: "items",
            populate:{
                path: "productId",
                model: "Product",
            },
        });
        res.status(200).json({ status: "success", data:cart.items });
    }catch{
        return res.status(400).json({ status: "fail",error:error.message });
    }
};
```

```javascript
cartController.deleteCartItem = async (req, res) => {
    try {
        const { id } = req.params;
        const { userId } = req;
        const cart = await Cart.findOne({ userId });
        cart.items = cart.items.filter((item) => !item._id.equals(id));

        await cart.save();
        res.status(200).json({ status: 200, cartItemQty: cart.items.length });
    } catch (error) {
        return res.status(400).json({ status: "fail", error:error.message });
    }
};

cartController.editCartItem = async (req, res) => {
    try {
        const { userId } = req;
        const { id } = req.params;

        const { qty } = req.body;
        const cart = await Cart.findOne({ userId }).populate({
            path: "items",
            populate: {
                path: "productId",
                model: "Product",
            },
        });
        if (!cart) throw new Error("There is no cart for this user");
        const index = cart.items.findIndex((item) => item._id.equals(id));
        if (index === -1) throw new Error("Can not find item");
        cart.items[index].qty = qty;
        await cart.save();
        res.status(200).json({ status: 200, data: cart.items });
    } catch (error) {
        return res.status(400).json({ status: "fail", error: error.message });
    }
};
```

Create (POST 요청)

POST ∨   http://localhost:5000/api/cart   Send ∨

Params   Authorization   Headers (10)   Body ●   Pre-request Script   Tests   Settings   Cookies

● none ● form-data ● x-www-form-urlencoded ● raw ● binary   JSON ∨   Beautify

```
15      // "size":["S","M"] ,
16      // "image" : "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
17      // "category" : ["top"],
18      // "description" :"this",
19      // "price": "10000",
20      // "stock" : {"s":1, "M":1},
21      // "status" : "active"
22
23
24
25        "productId": "675bca9c1093cc2522dd18b2",
26        "size": "M",
27        "qty": 2
28
```

Body   Cookies   Headers (8)   Test Results   ⊕ Status: 200 OK Time: 14 ms Size: 572 B   Save Response ∨

Pretty   Raw   Preview   Visualize   JSON ∨   ⇄

```
1   {
2     "status": "success",
3     "data": {
4        "_id": "6762770d847891ceaf922ca0",
5        "userId": "6750160f13591af28ef74c8f",
6        "items": [
7           {
8              "productId": "675bca9c1093cc2522dd18b2",
9              "size": "M",
10             "qty": 2,
11             "_id": "67636f7e366ac1ae6d2c3823"
12          }
13       ],
14       "createdAt": "2024-12-18T07:17:33.738Z",
15       "updatedAt": "2024-12-19T00:57:34.473Z",
16       "__v": 7
17    },
18    "cartItemQty": 1
19  }
```

→ 입력되부분

Read (GET 요청)


```
GET  ∨  http://localhost:5000/api/cart                                    Send

Params    Authorization    Headers (10)    Body ●    Pre-request Script    Tests    Settings         Cookie

○ none   ○ form-data   ○ x-www-form-urlencoded   ● raw   ○ binary   JSON ∨              Beautify

21    // "status" : "active"
22
23
24
25         "productId": "675bca9c1093cc2522dd18b2",
26         "size": "M",
27         "qty": 2
28
29
30
31
32
33
34    }
```

Body   Cookies   Headers (8)   Test Results   ⊕ Status: 200 OK   Time: 14 ms   Size: 572 B   Save Response

Pretty   Raw   Preview   Visualize   JSON ∨   ⇄

```
1   {
2       "status": "success",
3       "data": {
4           "_id": "6762770d847891ceaf922ca0",
5           "userId": "6750160f13591af28ef74c8f",
6           "items": [
7               {
8                   "productId": "675bca9c1093cc2522dd18b2",
9                   "size": "M",
10                  "qty": 2,
11                  "_id": "67636f7e366ac1ae6d2c3823"
12              }
13          ],
14          "createdAt": "2024-12-18T07:17:33.738Z",
15          "updatedAt": "2024-12-19T00:57:34.473Z",
16          "__v": 7
17      },
18      "cartItemQty": 1
19  }
```

Compass ⚙

{} My Queries

CONNECTIONS (3)   ✕ + ⋯

Search connections   ▼

▸ 🗄 cluster0.8jg6r.mongodb.net
▸ 🗄 cluster0.8jg6r.mongodb.net
▾ 🖳 localhost:27017   + >_ ⋯
  ▸ 🛢 admin
  ▸ 🛢 config
  ▸ 🛢 firstDB
  ▸ 🛢 local
  ▸ 🛢 mydatabase
  ▾ 🛢 shopping-mall
    📁 carts   ⋯
    📁 orders
    📁 products
    📁 users
  ▸ 🛢 toto-demo

📁 carts   +

localhost:27017 > shopping-mall > carts

Documents 1   Aggregations   Schema   Indexes 1   Validation

🕐 ▾   Type a query: { field: 'value' } or **Generate query** ✦ | Explain |

⊕ ADD DATA ▾   📤 EXPORT DATA ▾   ✏ UPDATE   🗑 DELETE   25 ▾ 1–

```
    _id: ObjectId('6762770d847891ceaf922ca0')
    userId : ObjectId('6750160f13591af28ef74c8f')
  ▾ items : Array (1)
    ▾ 0: Object
        productId : ObjectId('675bca9c1093cc2522dd18b2')
        size : "M"
        qty : 2
        _id : ObjectId('67636f7e366ac1ae6d2c3823')
    createdAt : 2024-12-18T07:17:33.738+00:00
    updatedAt : 2024-12-19T00:57:34.473+00:00
    __v : 7
```

Update (PUT 요청)

| PUT | http://localhost:5000/api/cart/67636f7e366ac1ae6d2c3823 | Send |

Params   Authorization   Headers (10)   Body •   Pre-request Script   Tests   Settings   Cookies

○ none   ○ form-data   ○ x-www-form-urlencoded   ● raw   ○ binary   JSON ∨   Beautify

```
16   // "image" : "https://atimg.sonyunara.com/files/attrangs/goods/156599/1699149926_0.gif",
17   // "category" : ["top"],
18   // "description" :"this",
19   // "price": "10000",
20   // "stock" : {"s":1, "M":1},
21   // "status" : "active"
22
23
24
25       "productId": "675bca9c1093cc2522dd18b2",
26       "size": "M",
27       "qty": 3
28
```

→ qty = 2를 3으로 변경

Body   Cookies   Headers (8)   Test Results   Status: 200 OK   Time: 10 ms   Size: 818 B   Save Response

Pretty   Raw   Preview   Visualize   JSON ∨

```
14           "description": "체형보완/벨벳무드/활용도갑",
15           "price": 40000,
16           "stock": {
17               "xs": 3,
18               "s": 3,
19               "m": 6
20           },
21           "status": "active",
22           "isDeleted": false,
23           "createdAt": "2024-12-13T05:48:12.668Z",
24           "updatedAt": "2024-12-19T00:12:33.616Z",
25           "__v": 0
26       },
27       "size": "M",
28       "qty": 3,
29       "_id": "67636f7e366ac1ae6d2c3823"
30       }
31   ]
32  }
```

수량 변경

Delete (DELETE 요청)

Delete (DELETE 요청)