

# Desarrollo Web

## Back-end

### Practica 3



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| Requerimiento   | Realizado |
|---|-----------|
| GET /products<br>Filtro por parámetros de búsqueda.   | Si        |
| POST /products/cart   | Si        |
| GET /products/:id   | Si        |
| Middleware de autenticar  | Si        |
| POST /admin/products  | Si        |
| PUT /admin/products/:id   | Si        |
| DELETE /admin/products:id   | Si        |
| <b>Código estructurado y modularizado</b><br>- Archivo de router global<br>- Archivo de router para productos<br>- Archivo de router para endpoints de administrador de productos | Si        |
| Manejo de archivos  | Si        |

## GET /products

```
### Get all products
Send Request | Comment Code | Improve Code
GET http://localhost:3000/products HTTP/1.1

Response(24ms) X

1  HTTP/1.1 200 OK
2  X-Powered-By: Express
3  Content-Type: text/html; charset=utf-8
4  Content-Length: 1440
5  ETag: W/"5a0-k+QL77izsBMYG3BF09TckB9zlqk"
6  Date: Thu, 21 Mar 2024 18:53:40 GMT
7  Connection: close
8
9  {
10   "products": [
11     {
12       "_uid": "59ad9f41-f6fd-4445-a997-c57694b46e22",
13       "_title": "Tenis Nike",
14       "_description": "Tenis para correr en pista color rojo",
15       "_imageUrl": "https:",
16       "_unit": "par",
17       "_stock": 14,
18       "_pricePerUnit": 1334,
19       "_category": "Calzado"
20     },
21     {
22       "_uid": "71fefcab-ca80-4c74-a6f0-00a57b9ca3b2",
23       "_title": "SmartWatch",
24       "_description": "Reloj inteligente para runners",
25       "_imageUrl": "https:",
26       "_unit": "pieza",
27       "_stock": 20,
28       "_pricePerUnit": 29034,
29       "_category": "Electronica"
30     },
31     {
32       "_uid": "e4d09f09-f157-4e25-a32f-66fac8e33450",
33       "_title": "Termo de Agua",
34       "_description": "Termo para liquido de 500ml",
35       "_imageUrl": "https:",
36       "_unit": "pieza",
37       "_stock": 200,
38       "_pricePerUnit": 540.6,
39       "_category": "Hogar"
40     },
41     {
42       "_uid": "17db4fb7-4108-4800-8548-a3742997ab59",
43       "_title": "Huaraches",
44       "_description": "Huaraches de piel para vestir tall 23cm",
45       "_imageUrl": "https:",
46       "_unit": "par",
47       "_stock": 12,
48       "_pricePerUnit": 784.5,
49       "_category": "Calzado"
50     }
51   ]
52 }
```

```

### Get product by search parameter title
Send Request | Comment Code | Improve Code
GET http://localhost:3000/products?title=Tenis%20Nike HTTP/1.1
Response(21ms) X

1 HTTP/1.1 200 OK
2 X-Powered-By: Express
3 Content-Type: application/json; charset=utf-8
4 Content-Length: 217
5 ETag: W/"d9-kl1j87s047V8TQormsDZ/eYqfmM"
6 Date: Thu, 21 Mar 2024 18:58:57 GMT
7 Connection: close
8
9 √ [
10 √ {
11   "_uuid": "59ad9f41-f6fd-4445-a997-c57694b46e22",
12   "_title": "Tenis Nike",
13   "_description": "Tenis para correr en pista color rojo",
14   "_imageUrl": "https:",
15   "_unit": "par",
16   "_stock": 14,
17   "_pricePerUnit": 1334,
18   "_category": "Calzado"
19 }
20 ]

```

```

### Get product by search parameter category
Send Request | Comment Code | Improve Code
GET http://localhost:3000/products?category=Calzado HTTP/1.1
1 HTTP/1.1 200 OK
2 X-Powered-By: Express
3 Content-Type: application/json; charset=utf-8
4 Content-Length: 435
5 ETag: W/"1b3-5m4a/mPX1s10ObWFuqW0Vt47mdI"
6 Date: Thu, 21 Mar 2024 19:00:32 GMT
7 Connection: close
8
9 √ [
10 √ {
11   "_uuid": "59ad9f41-f6fd-4445-a997-c57694b46e22",
12   "_title": "Tenis Nike",
13   "_description": "Tenis para correr en pista color rojo",
14   "_imageUrl": "https:",
15   "_unit": "par",
16   "_stock": 14,
17   "_pricePerUnit": 1334,
18   "_category": "Calzado"
19 },
20 √ {
21   "_uuid": "17db4fb7-4108-4800-8548-a3742997ab59",
22   "_title": "Huaraches",
23   "_description": "Huaraches de piel para vestir tall 23cm",
24   "_imageUrl": "https:",
25   "_unit": "par",
26   "_stock": 12,
27   "_pricePerUnit": 784.5,
28   "_category": "Calzado"
29 }
30 ]

```

### Get product by search parameter title and category

Send Request | Comment Code | Improve Code

GET <http://localhost:3000/products?title=Huaraches&category=Calzado> HTTP/1.1

```
1  HTTP/1.1 200 OK
2  X-Powered-By: Express
3  Content-Type: application/json; charset=utf-8
4  Content-Length: 219
5  ETag: W/"db-8UmHoaJAuz2UtmU3jGbn5e4m4"
6  Date: Thu, 21 Mar 2024 19:01:55 GMT
7  Connection: close
8
9  √ [
10 √ {
11   "_uuid": "17db4fb7-4108-4800-8548-a3742997ab59",
12   "_title": "Huaraches",
13   "_description": "Huaraches de piel para vestir tall 23cm",
14   "_imageUrl": "https:",
15   "_unit": "par",
16   "_stock": 12,
17   "_pricePerUnit": 784.5,
18   "_category": "Calzado"
19 }
20 ]
```

## POST /products/cart

```
### Post product cart that not exists in 'Data Base'
Send Request | Comment Code | Improve Code
POST http://localhost:3000/products/cart HTTP/1.1
Content-Type: application/json

{
  "products": [
    {
      "title": "Audifonos",
      "description": "Audifonos on ear colo negro",
      "imageUrl": "https:",
      "unit": "pieza",
      "stock": 45,
      "price": 1234,
      "category": "Electronica"
    },
    {
      "title": "Crema Dove",
      "description": "Crema corporal humectante",
      "imageUrl": "https:",
      "unit": "pieza",
      "stock": 87,
      "pricePerUnit": 83,
      "category": "Salud"
    }
  ]
}

1 HTTP/1.1 404 Not Found
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 27
5 ETag: W/"1b-qUg4uitAS1jiN8pVjwEg0vLGjcE"
6 Date: Thu, 21 Mar 2024 20:07:07 GMT
7 Connection: close
8
9 Product Audifonos not found
```

### Post product cart that exists in 'Data Base'

Send Request | Comment Code | Improve Code

POST <http://localhost:3000/products/cart> HTTP/1.1

Content-Type: application/json

```
{
  "products":[
    {
      "title":"Tenis Nike",
      "description":"Tenis para correr en pista color rojo",
      "imageUrl":"https:",
      "unit":"par",
      "stock":14,
      "price":1334,
      "category":"Calzado"
    },
    {
      "title":"SmartWatch",
      "description":"Reloj inteligente para runners",
      "imageUrl":"https:",
      "unit":"pieza",
      "stock":20,
      "pricePerUnit":29034,
      "category":"Electronica"
    }
  ]
}
```

HTTP/1.1 200 OK

X-Powered-By: Express

Content-Type: application/json; charset=utf-8

Content-Length: 368

ETag: W/"170-UTp19iajctoUpAv6Z0A1e415vSA"

Date: Thu, 21 Mar 2024 20:30:14 GMT

Connection: close

```
"[{\"title\":\"Tenis Nike\",\"description\":\"Tenis para correr en pista color rojo\", \"imageUrl\":\"https:\", \"unit\":\"par\", \"stock\":14, \"price\":1334, \"category\":\"Calzado\"}, {\"title\":\"SmartWatch\", \"description\":\"Reloj inteligente para runners\", \"imageUrl\":\"https:\", \"unit\":\"pieza\", \"stock\":20, \"pricePerUnit\":29034, \"category\":\"Electronica\"}]"
```

## GET /products/:id

```
### Get product cart with existing id
Send Request | Comment Code | Improve Code
GET http://localhost:3000/products/:59ad9f41-f6fd-4445-a997-c57694b46e22 HTTP/1.1
HTTP/1.1 200 OK
X-Powered-By: Express
Content-Type: application/json; charset=utf-8
Content-Length: 215
ETag: W/"d7-xGPeMHZowb4uXZtc2RnG7RyfMEo"
Date: Thu, 21 Mar 2024 20:46:05 GMT
Connection: close

{
  "_uuid": "59ad9f41-f6fd-4445-a997-c57694b46e22",
  "_title": "Tenis Nike",
  "_description": "Tenis para correr en pista color rojo",
  "_imageUrl": "https:",
  "_unit": "par",
  "_stock": 14,
  "_pricePerUnit": 1334,
  "_category": "Calzado"
}
```

```
### Get product cart with and id that not exists
Send Request | Comment Code | Improve Code
GET http://localhost:3000/products/:fff HTTP/1.1
1 HTTP/1.1 404 Not Found
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 17
5 ETag: W/"11-mDvZIAY+AU+vAESXXtbmFRvaPSc"
6 Date: Thu, 21 Mar 2024 20:47:06 GMT
7 Connection: close
8
9 Product not found
```



## Middleware de autenticar

```
### Admin add product to check Middleware de autenticación
Send Request | Comment Code | Improve Code
POST http://localhost:3000/admin/products HTTP/1.1
Content-Type: application/json
x-token: fakeuser

{
  "title": "Termo de Agua",
  "description": "Termo para liquido de 500ml",
  "imageurl": "https:",
  "unit": "pieza",
  "stock": 200,
  "price": 540.6,
  "category": "Hogar"
}

1 HTTP/1.1 403 Forbidden
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 66
5 ETag: W/"42-2hWBrM/ihzP02PJCsUFiHbc+sd8"
6 Date: Thu, 21 Mar 2024 21:23:22 GMT
7 Connection: close
8
9 Acceso no autorizado no se cuenta con privilegios de administrador
```

## POST /admin/products

```
### Admin add product with an incomplete body
Send Request | Comment Code | Improve Code
POST http://localhost:3000/admin/products HTTP/1.1
Content-Type: application/json
x-token: admin

{
  "title": "Lentes de sol",
  "description": "Lentes de sol genericos con antirreflejante color negro",
  "imageurl": "https:",
  "unit": "pieza",
  "stock": 209,
  "price": 689
}

1 HTTP/1.1 400 Bad Request
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 30
5 ETag: W/"1e-tgptAE+gRCjd121yJq9DdgVscu0"
6 Date: Thu, 21 Mar 2024 22:41:26 GMT
7 Connection: close
8
9 Error, falta agergar: category
```

```

### Admin add product
Send Request | Comment Code | Improve Code
POST http://localhost:3000/admin/products HTTP/1.1
Content-Type: application/json
x-token: admin

{
  "title": "Lentes de sol",
  "description": "Lentes de sol genericos con antirreflejante color negro",
  "imageurl": "https:",
  "unit": "pieza",
  "stock": 209,
  "price": 689,
  "category": "Belleza"
}

1 HTTP/1.1 201 Created
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 43
5 ETag: W/"2b-ixDVKJcDxGwo0fITn1SqUmRK/j0"
6 Date: Thu, 21 Mar 2024 23:01:51 GMT
7 Connection: close
8
9 Producto Lentes de sol creado correctamente
set uuid(value){
  if(value === null)
  {
    // Change this to autogenerate
    // this._uuid = generateUUID();
    this._uuid = UUID.generateUUID();
  }
}, {
  "_uuid": "ab5ba75b-7d85-42da-b416-d614e169321a",
  "_title": "Lentes de sol",
  "_description": "Lentes de sol genericos con antirreflejante color negro",
  "_imageurl": "https:",
  "_unit": "pieza",
  "_stock": 209,
  "_pricePerUnit": 689,
  "_category": "Belleza"
}]

```

## PUT /admin/products/:id

```
### Admin update product with token that not exists
Send Request | Comment Code | Improve Code
PUT http://localhost:3000/admin/products/:ab5ba75b-7d85-42da-b416-d614e169321a HTTP/1.1
Content-Type: application/json
x-token: fakeuser

{
  "title": "Lentes de sol",
  "description": "Lentes de sol genericos con antirreflejante color negro",
  "imageurl": "https:",
  "unit": "pieza",
  "stock": 209,
  "price": 999,
  "category": "Belleza"
}

1 HTTP/1.1 403 Forbidden
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 66
5 ETag: W/"42-2hWBrM/iHzP02PJCsUFiHbc+sd8"
6 Date: Thu, 21 Mar 2024 23:33:06 GMT
7 Connection: close
8
9 Acceso no autorizado no se cuenta con privilegios de administrador
```

```
### Admin update product with a non existing id
Send Request | Comment Code | Improve Code
PUT http://localhost:3000/admin/products/:ff HTTP/1.1
Content-Type: application/json
x-token: admin

{
  "title": "Lentes de sol",
  "description": "Lentes de sol genericos con antirreflejante color negro",
  "imageurl": "https:",
  "unit": "pieza",
  "stock": 209,
  "price": 689,
  "category": "Belleza"
}

1 HTTP/1.1 404 Not Found
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 29
5 ETag: W/"1d-xz/PCyT75zApF6SQ741Be5fkzfQ"
6 Date: Thu, 21 Mar 2024 23:34:13 GMT
7 Connection: close
8
9 Error: Producto no encontrado
```

```
### Admin update price product with existing id
Send Request | Comment Code | Improve Code
PUT http://localhost:3000/admin/products/:ab5ba75b-7d85-42da-b416-d614e169321a HTTP/1.1
Content-Type: application/json
x-token: admin

{
  "title": "Lentes de sol",
  "description": "Lentes de sol genericos con antirreflejante color negro",
  "imageurl": "https:",
  "unit": "pieza",
  "stock": 209,
  "price": 999,
  "category": "Belleza"
}

1 HTTP/1.1 200 OK
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 48
5 ETag: W/"30-BhRivXC8zIRiWVR1djp840p1qcU"
6 Date: Thu, 21 Mar 2024 23:26:13 GMT
7 Connection: close
8
9 Producto Lentes de sol actualizado correctamente
], {
  "_uuid": "ab5ba75b-7d85-42da-b416-d614e169321a",
  "_title": "Lentes de sol",
  "_description": "Lentes de sol genericos con antirreflejante color negro",
  "_imageUrl": "https:",
  "_unit": "pieza",
  "_stock": 209,
  "_pricePerUnit": 999,
  "_category": "Belleza"
}]
```

## DELETE /admin/products:id

```
### Delete product with token that not exists
Send Request | Comment Code | Improve Code
DELETE http://localhost:3000/admin/products/:ab5ba75b-7d85-42da-b416-d614e169321a HTTP/1.1
Content-Type: application/json
x-token: fakeuser
1 HTTP/1.1 403 Forbidden
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 66
5 ETag: W/"42-2hWBrM/ihzP02PJCsuFiHbc+sd8"
6 Date: Thu, 21 Mar 2024 23:38:25 GMT
7 Connection: close
8
9 Acceso no autorizado no se cuenta con privilegios de administrador
```

```
### Admin delete product with an id that not exists
Send Request | Comment Code | Improve Code
DELETE http://localhost:3000/admin/products/:fff HTTP/1.1
Content-Type: application/json
x-token: admin
1 HTTP/1.1 404 Not Found
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 29
5 ETag: W/"1d-xz/PCyT75zApF6SQ74lBe5fkzfQ"
6 Date: Thu, 21 Mar 2024 23:40:14 GMT
7 Connection: close
8
9 Error: Producto no encontrado
```

### Admin delete product

Send Request | Comment Code | Improve Code

DELETE <http://localhost:3000/admin/products/:ab5ba75b-7d85-42da-b416-d614e169321a> HTTP/1.1

Content-Type: application/json

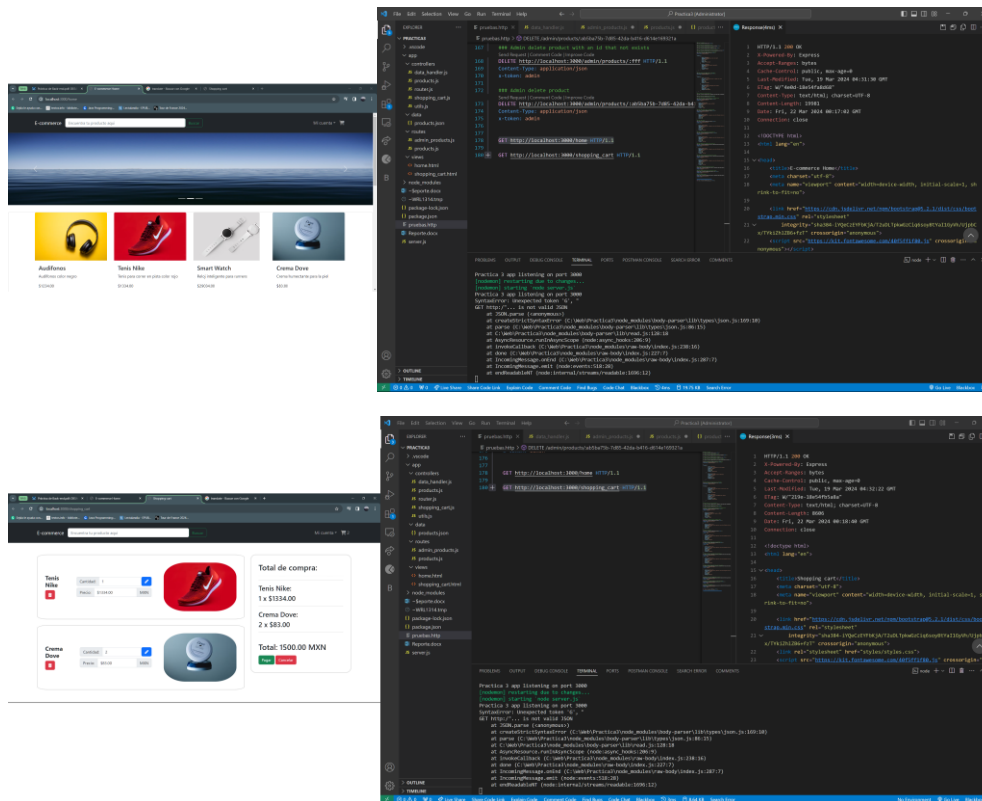
x-token: admin

```
1 HTTP/1.1 200 OK
2 X-Powered-By: Express
3 Content-Type: text/html; charset=utf-8
4 Content-Length: 46
5 ETag: W/"2e-qfAMecVGCie0HJEN8gWhBt2GybY"
6 Date: Thu, 21 Mar 2024 23:42:43 GMT
7 Connection: close
8
9 Producto Lentes de sol eliminado correctamente
```

```
{
  "_category": "Hogar"
}, {
  "_uuid": "17db4fb7-4108-4800-8548-a3742997ab59",
  "_title": "Huaraches",
  "_description": "Huaraches de piel para vestir tall 23cm",
  "_imageUrl": "https:",
  "_unit": "par",
  "_stock": 12,
  "_pricePerUnit": 784.5,
  "_category": "Calzado"
}]
```

• CMD+L for Code Chat

GET /, /home, /shopping\_cart



## Conclusiones

Esta práctica a pesar de que era Back-end y yo creí que se me iba a ser más rápido o fácil por la lógica que se utiliza, me tomó bastante tiempo de lo pensado, por suerte la empecé el mismo día que la dejaron y tuve tiempo para trabajarla y resolver todos los problemas que se me iban cruzando. Una de las cosas que más se me complicó fue hacer el apartado de `admin_products.js` ya que hice muchos ‘casos’ uno para cada uno, de casos válido o no válidos en los productos o consultas de usuario, me complicó de más esta parte y me confundí un poco creando `router.post/put/delete` innecesarios. Pero pude resolverlo viendo los ejemplos de las sesiones anteriores y vi que solo utilizábamos 3 y con esos abarcaron todos los casos, entonces creé esos 3 y fui adaptando el código interno y agregando condiciones en cada uno de los `router`. Como en todo creo que mejore considerablemente mi conocimiento con las REST API por que me iban saliendo errores de funciones que no actualizaban ciertas cosas bien, o marcaban errores y cada vez los iba resolviendo más rápido sabiendo en que fallaba.