## Add Product API

In this API endpoint, we have to send a new product detail in the request and the service will create the product in the system. Once the product creation is complete, the API will respond with the newly created product detail. Here is the requirement specification for this API.

/products

**Response Status**

201

**Response Body**

Product Details

**Request Body**

**Request Query Parameter**

None

**Request Path Parameter**

**API Endpoint**

POST

**HTTP Method**

None

Created product Details

## Add Items to Shopping Cart API

In this API endpoint, we have to send a new product detail to shopping cart in the request and the service will add the product into cart in the system. Once the product addition in cart is complete, the API will respond with the newly created cart. Here is the requirement specification for this API.

/cart

**Response Status**

201

**Response Body**

product Details

**Request Body**

**Request Query Parameter**

None

**Request Path Parameter**

**API Endpoint**

POST

**HTTP Method**

None

Created cart Details

## Get Product List API

With this API endpoint, we will be able to get a list of products. This API endpoint will also have searching, filtering, and paging features. So that can search for products with particular search criteria, apply some filtering conditions, and we can even get the result with pagination. Requirement specification for this functionality is as below.

/products

**Response Status**

200

**Response Body**

None

**Request Body**

**Request Query Parameter**

None

**Request Path Parameter**

**API Endpoint**

GET

**HTTP Method**

None

Fetched product List

## Get Product details API

Once the product has been created or modified, we can get the detail for a particular product via this API endpoint. Requirement specification for this functionality is as below.

/products/details

**Response Status**

200

**Response Body**

None

**Request Body**

**Request Query Parameter**

None

**Request Path Parameter**

**API Endpoint**

GET

**HTTP Method**

None

Fetched product\_details

## Get Shopping Cart API

Once the product in cart has been added or modified, we can get the detail for a particular product in the cart via this API endpoint. Requirement specification for this functionality is as below.

/cart

**Response Status**

200

**Response Body**

None

**Request Body**

**Request Query Parameter**

None

**Request Path Parameter**

**API Endpoint**

GET

**HTTP Method**

None

Fetched cart

## Modify product API

In this operation, we will send the modified product detail in the request to be persisted in the storage. Like the add product API, this will also respond the modified product detail in the response once it’s completed the request. Requirement specification for this functionality is as below.

/products

**API Endpoint**

PUT

**HTTP Method**

productId

**Response Status**

204

**Response Body**

None

**Request Body**

**Request Query Parameter**

None

**Request Path Parameter**

Modified product Details

## Modify items in shopping cart API

In this operation, we will send the modified product detail into cart in the request to be persisted in the storage. Like the add product API, this will also respond the modified product detail into cart in the response once it’s completed the request. Requirement specification for this functionality is as below.

/cart

**API Endpoint**

PUT

**HTTP Method**

quantity

**Response Status**

204

**Response Body**

None

**Request Body**

**Request Query Parameter**

None

**Request Path Parameter**

Modified product quantity Details

## Delete Product API

We can also delete a product from our system using this API endpoint. Once the product has been removed from the system, this will respond with the product detail back to the requested system. Requirement specification for this functionality is as below.

/products

**Response Status**

204

**Response Body**

None

**Request Body**

**Request Query Parameter**

None

**Request Path Parameter**

**API Endpoint**

DELETE

**HTTP Method**

productId

Removed product

## Remove items in shopping cart API

We can also delete products in cart from our system using this API endpoint. Once the product has been removed from the system, this will respond with the product detail in the cart back to the requested system. Requirement specification for this functionality is as below.

/cart

**Response Status**

204

**Response Body**

None

**Request Body**

**Request Query Parameter**

None

**Request Path Parameter**

**API Endpoint**

DELETE

**HTTP Method**

productId

# Product Details

Since our system’s primary purpose is to collect, store and make ordering facility available, we need to define all fields or attributes of the product information. The below table shows the attributes that we want to store in the storage for a product.

Also, field type required flag and any constraints of each attribute. This additional information is

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Field Type** | **Required?** | **Constraints** |
| Product ID | integer | Required |  |
| Product Name | string | Required |  |
| Price | integer | Required |  |
| Product type | string | Required |  |
| Product description | string | Required | Valid information |

Seller Name string Required

|  |  |  |  |
| --- | --- | --- | --- |
| Seller contact | string | Required | Valid Phone Number |

Shopping Cart Details :

|  |  |  |  |
| --- | --- | --- | --- |
| **Field Name** | **Field Type** | **Required?** | **Constraints** |
| Product ID | integer | Required |  |
| Customer ID | integer | Required |  |
| Cart ID | integer | Required |  |
| Quantity | integer | Required | integer>0 |