

# RESTful Shop-Demo API Guide

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# Introduction

This document describes all RESTful microservice of this shop demo project.

# Overview

# HTTP verbs

RESTful notes tries to adhere as closely as possible to standard HTTP and REST conventions in its use of HTTP verbs.

Verb	Usage
GET	Used to retrieve a resource
POST	Used to create a new resource
PATCH	Used to update an existing resource, including partial updates
DELETE	Used to delete an existing resource

RESTful notes tries to adhere as closely as possible to standard HTTP and REST conventions in its use of HTTP status codes.

Status code	Usage
200 OK	The request completed successfully
201 Created	A new resource has been created successfully. The resource's URI is available from the response's <b>Location</b> header
204 No Content	An update to an existing resource has been applied successfully
400 Bad Request	The request was malformed. The response body will include an error providing further information
404 Not Found	The requested resource did not exist

# Hypermedia

RESTful Notes uses hypermedia and resources include links to other resources in their responses. Responses are in [Hypertext Application from resource to resource. Language \(HAL\)](#) format. Links can be found beneath the `_links` key. Users of the API should not create URIs themselves, instead they should use the above-described links to navigate

# Product REST Service

The product rest service is used to create, modify and list products.

## Listing product

The **GET** request returns all products.

Path	Type	Description
<code>content[].productUuid</code>	String	The unique identifier of the product
<code>content[].creationDate</code>	String	Creation date of the object
<code>content[].updateDate</code>	String	Update date of the object
<code>content[].name</code>	String	Name of the product
<code>content[].shortDescription</code>	String	Short product description
<code>content[].longDescription</code>	String	Long product description
<code>totalPages</code>	Number	Number of total pages.
<code>totalElements</code>	Number	Total amount of elements.
<code>last</code>	Boolean	Indicates whether the current page is the first one.
<code>size</code>	Number	Size of the page.
<code>number</code>	Number	Number of the current page.
<code>sort</code>	Null	Sorting parameters for the page.
<code>first</code>	Boolean	Indicates whether the current page is the first one.
<code>numberOfElements</code>	Number	Number of elements currently on this page.

## Example request

```
$ curl 'http://localhost:8080/products/0/3' -i -H 'Accept: application/json'
```

## Example response

HTTP/1.1 200 OK

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

Content-Length: 1052

```
{
  "content" : [ {
    "creationDate" : "2017-11-01 14:08 PM UTC",
    "updateDate" : "2017-11-01 14:08 PM UTC",
    "productUuid" : "5635f332-86cc-487d-9d9a-90f0401e3774",
    "name" : "Product1",
    "shortDescription" : "product1 short description",
    "longDescription" : "product1 long description"
  }, {
    "creationDate" : "2017-11-01 14:08 PM UTC",
    "updateDate" : "2017-11-01 14:08 PM UTC",
    "productUuid" : "38768152-cc11-4d41-a9a1-4be0db7604ab",
    "name" : "Product2",
    "shortDescription" : "product2 short description",
    "longDescription" : "product2 long description"
  }, {
    "creationDate" : "2017-11-01 14:08 PM UTC",
    "updateDate" : "2017-11-01 14:08 PM UTC",
    "productUuid" : "e1f60e88-5a82-496d-9ddf-d22eeac7f653",
    "name" : "name updated",
    "shortDescription" : "short description updated",
    "longDescription" : "long description updated"
  } ],
  "totalPages" : 1,
  "totalElements" : 3,
  "last" : true,
  "size" : 3,
  "number" : 0,
  "sort" : null,
  "first" : true,
  "numberOfElements" : 3
}
```

## Returning product

The **GET** request returns a product identified by the unique identifier.

Path	Type	Description
<b>productUuid</b>	<b>String</b>	The unique identifier of the product
<b>creationDate</b>	<b>String</b>	Creation date of the object
<b>updateDate</b>	<b>String</b>	Update date of the object
<b>name</b>	<b>String</b>	Name of the product



Path	Type	Description
shortDescription	String	Short product description
longDescription	String	Long product description
_links.next.href	String	Link to the next product

## Example request

```
$ curl 'http://localhost:8080/product/5635f332-86cc-487d-9d9a-90f0401e3774' -i -H
'Accept: application/hal+json'
```

## Example response

```
HTTP/1.1 200 OK
Content-Type: application/hal+json;charset=UTF-8
Content-Length: 374

{
  "creationDate" : "2017-11-01 14:08 PM UTC",
  "updateDate" : "2017-11-01 14:08 PM UTC",
  "productUuid" : "5635f332-86cc-487d-9d9a-90f0401e3774",
  "name" : "Product1",
  "shortDescription" : "product1 short description",
  "longDescription" : "product1 long description",
  "_links" : {
    "next" : {
      "href" : "http://localhost:8080/product/testuuid"
    }
  }
}
```

## Saving/Updating product

The **POST** request saves or updates a product.

Path	Type	Description
productUuid	Null	The unique identifier of the product
creationDate	String	Creation date of the object
updateDate	String	Update date of the object
name	String	Name of the product
shortDescription	String	Short product description
longDescription	String	Long product description

## Example request

```
$ curl 'http://localhost:8080/product' -i -X POST -H 'Content-Type: application/json' -d '{
  "creationDate" : "2017-11-01 14:08 PM UTC",
  "updateDate" : "2017-11-01 14:08 PM UTC",
  "productUuid" : null,
  "name" : "Product2",
  "shortDescription" : "product2 short description",
  "longDescription" : "product2 long description"
}'
```

## Example response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: 277

{
  "creationDate" : "2017-11-01 14:08 PM UTC",
  "updateDate" : "2017-11-01 14:08 PM UTC",
  "productUuid" : "38768152-cc11-4d41-a9a1-4be0db7604ab",
  "name" : "Product2",
  "shortDescription" : "product2 short description",
  "longDescription" : "product2 long description"
}
```

## Deleting product

The **DELETE** request deletes a product identified by the unique identifier.

## Example request

```
$ curl 'http://localhost:8080/product/6559c2f0-baa7-4e89-aff0-dca0f9f393d7' -i -X DELETE -H 'Accept: application/json'
```

## Example response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: 1

1
```

# Recommendation REST Service

The recommendation rest service is used to create, modify and list product recommendations.

## Returning recommendations for a product

The **GET** request returns the recommendations for a product identified by the unique product identifier.

Path	Type	Description
creationDate	String	Creation date of the object
updateDate	String	Update date of the object
recommendationUuid	String	The unique identifier of the recommendation
recommendationFor	Object	Product for which the recommendations are
recommendations[]	Array	Recommendations for the product

### Example request

```
$ curl 'http://localhost:8080/recommendation/product/c7fec008-6e3b-47f9-8591-65c759fce363' -i -H 'Accept: application/json'
```

### Example response

```

HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: 1379

{
  "creationDate" : "2017-11-01 15:24 PM UTC",
  "updateDate" : "2017-11-01 15:24 PM UTC",
  "recommendationUuid" : "41eecce8-d99d-401c-b113-930ef5e9d7d9",
  "recommendationFor" : {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "c7fec008-6e3b-47f9-8591-65c759fce363",
    "name" : "Product5",
    "shortDescription" : "product5 short description",
    "longDescription" : "product5 long description"
  },
  "recommendations" : [ {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "d3b358da-7b11-459d-8ed6-8d99a32dc577",
    "name" : "Product1",
    "shortDescription" : "product1 short description",
    "longDescription" : "product1 long description"
  }, {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "4d723be5-d932-4f91-b8e7-ea6a030098d4",
    "name" : "Product3",
    "shortDescription" : "product3 short description",
    "longDescription" : "product3 long description"
  }, {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "e33ab218-90da-491a-a9d2-c6bbf30e0672",
    "name" : "Product4",
    "shortDescription" : "product4 short description",
    "longDescription" : "product4 long description"
  } ]
}

```

## Saving/Updating recommendation

The **POST** request saves or updates a recommendation.

Path	Type	Description
<b>creationDate</b>	<b>String</b>	Creation date of the object
<b>updateDate</b>	<b>String</b>	Update date of the object

Path	Type	Description
<code>recommendationUuid</code>	String	The unique identifier of the recommendation
<code>recommendationFor</code>	Object	Product for which the recommendations are
<code>recommendations[]</code>	Array	Recommendations for the product

## Example request

```
$ curl 'http://localhost:8080/recommendation' -i -X POST -H 'Content-Type: application/json' -d '{
  "creationDate" : "2017-11-01 15:24 PM UTC",
  "updateDate" : "2017-11-01 15:24 PM UTC",
  "recommendationUuid" : "41eecce8-d99d-401c-b113-930ef5e9d7d9",
  "recommendationFor" : {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "c7fec008-6e3b-47f9-8591-65c759fce363",
    "name" : "Product5",
    "shortDescription" : "product5 short description",
    "longDescription" : "product5 long description"
  },
  "recommendations" : [ {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "4d723be5-d932-4f91-b8e7-ea6a030098d4",
    "name" : "Product3",
    "shortDescription" : "product3 short description",
    "longDescription" : "product3 long description"
  }, {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "e33ab218-90da-491a-a9d2-c6bbf30e0672",
    "name" : "Product4",
    "shortDescription" : "product4 short description",
    "longDescription" : "product4 long description"
  } ]
}'
```

## Example response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: 1086

{
  "creationDate" : "2017-11-01 15:24 PM UTC",
  "updateDate" : "2017-11-01 15:24 PM UTC",
  "recommendationUuid" : "41eecce8-d99d-401c-b113-930ef5e9d7d9",
  "recommendationFor" : {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "c7fec008-6e3b-47f9-8591-65c759fce363",
    "name" : "Product5",
    "shortDescription" : "product5 short description",
    "longDescription" : "product5 long description"
  },
  "recommendations" : [ {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "4d723be5-d932-4f91-b8e7-ea6a030098d4",
    "name" : "Product3",
    "shortDescription" : "product3 short description",
    "longDescription" : "product3 long description"
  }, {
    "creationDate" : "2017-11-01 15:24 PM UTC",
    "updateDate" : "2017-11-01 15:24 PM UTC",
    "productUuid" : "e33ab218-90da-491a-a9d2-c6bbf30e0672",
    "name" : "Product4",
    "shortDescription" : "product4 short description",
    "longDescription" : "product4 long description"
  } ]
}
```

## Deleting recommendation

The **DELETE** request deletes a recommendation identified by the unique product identifier.

### Example request

```
$ curl 'http://localhost:8080/recommendation/product/c7fec008-6e3b-47f9-8591-65c759fce363' -i -X DELETE -H 'Accept: application/json'
```

### Example response

```
HTTP/1.1 200 OK
Content-Type: application/json;charset=UTF-8
Content-Length: 1
```

```
1
```