

A7: Web Resources Documentation

The architecture of the web application to develop is documented indicating the catalogue of resources and the properties of each resource, including: references to the graphical interfaces, and the format of JSON responses. This page includes the following operations over data: create, read, update, and delete.

1. Overview

M01: Authentication and Profile	Web resources associated with the user authentication. It also includes web resources associated with user information such as basic information and addresses.
M02: Products and Categories	Web resource associated with the search, filtering and listing of the products available to the user.
M03: Management Area	Web resources associated with website management, specifically: view and edit purchases, view, edit, add and delete properties, view, edit, add and delete categories and view, add and delete faqs.
M04: Product and Reviews	Web resources associated with the product and its reviews. It also includes web resources associated the adding and editing a product.
M05: Static Pages	Web resources associated with static content/pages, such as: about, contact and faq.
M06: Cart and Wishlist	Web resources associated with the cart and wishlist.

2. Permissions

PUB	Public	Group of users without privileges.
USR	User	Authenticated user.
OWN	Owner	Group of users that can update their profiles and have privileges regarding their purchases and reviews.
ADM	Administrator	Group of administrators.

3. Overview

Module M01: Authentication and Profile

Endpoints

These are the endpoints available in the Authentication and Profile Module.

- R101 - Sign In Form */signin*
- R102 - Sign In Action */signin*

- R103 - Logout Action */logout*
- R104 - Register Form */register*
- R105 - Register Action */register*
- R106 - View Profile */profile/{id}*
- R107 - Edit Profile Action */profile/edit*
- R108 - Cancel Account Action */profile/cancel*
- R109 - Add Address Action */profile/address*
- R110 - Delete Address Action */profile/address*

R101 - Sign In Form

URL	<i>/signin</i>
Description	Page with a form to sign in to a user account.
Method	GET
UI	UI11 (Sign in page)
Submit	R102
Permissions	PUB

R102 - Sign In Action

URL	/signin	
Description	This web resource logs the user into the system. Redirects to the homepage on success and the login form on failure.	
Method	POST	
Request	+email: string	Email
Body	+password: string	Password
Redirects	UI01 (Homepage)	Success
	UI11 (Sign in page)	Error
Permissions	PUB	

R103 - Logout Action

URL	/logout	
Description	This web resource logs out the authenticated user or admin.	
Method	POST	
Redirects	UI01 (Homepage)	Success
	UI04 (User profile page)	Error
Permissions	USR, ADM	

R104 - Register Form

URL	/register
Description	Page with a form to register a new user account.
Method	GET
UI	UI10 (Register page)
Submit	R105
Permissions	PUB

R105 - Register Action

URL	/register	
Description	This web resource inserts a new user into the system. Redirects to the homepage on success and the register form on failure.	
Method	POST	
Request Body	+name: string	Name
	+username: string	Username
	+email: string	Email
	+password: string	Password
	+repeat_password: string	Repeat Password
Redirects	UI01 (Homepage)	Success
	UI10 (Register page)	Error
Permissions	PUB	

R106 - View Profile

URL	/profile/{id}		
Description	Shows the user individual profile page.		
Method	GET		
Parameters	+id: integer	user primary key	
UI	UI04 (User profile page)		
Ajax Call	R107	R109	R110
Permissions	USR		
Observations	Whenever the user clicks on the "cancel account" button, the action R108 is called.		

Whenever the user clicks on a purchased product, the product page is open as in [R401](#)

R107 - Edit Profile Action

URL	/profile/edit	
Description	Web resource that changes user profile info based on the input received. Shows a message in both cases error or success. To set a new password, password field should be filled	
Method	PUT	
Request Body	+id: integer	user primary key
	+name: string	Name
	+username: string	Username
	+email: string	Email
	?password: string	Password
	?new_password: string	New Password
	?new_password_confirmation: string	New Password Confirmation
Returns	200 OK	The profile was successfully updated.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. There's not a user with the specified primary key
Permissions	USR	

R108 - Cancel Account Action

URL	/profile/cancel	
Description	This web resource removes basic user information that will no longer be necessary. Redirects to the Homepage on success and to the user profile page on failure.	
Method	PUT	
Request Body	+id: integer	user primary key
Redirects	UI01 (Homepage)	Success
	UI04 (User profile page)	Error
Permissions	USR	

R109 - Add Address Action

URL	/profile/address	
-----	------------------	--

Description	Web resource that adds an user's address based on the input received. Redirects to the user profile either on success or on failure, showing a message in both cases.	
Method	POST	
Request Body	+id: integer	user primary key
Response Body	+name: string Name +street_address: string Street Address +zip_code: string ZIP Code +city_id: integer city primary key	
Permissions	USR	

R110 - Delete Address Action

URL	/profile/address	
Description	Web resource that archives an user's address. Redirects to the user profile either on success or on failure, showing a message in both cases.	
Method	DELETE	
Request Body	+id: integer	address primary key
Returns	200 OK	The address was successfully updated as archived.
	404 Not Found	Error. There's not an address with the specified primary key
Permissions	USR	

Module M02: Products and Categories

Endpoints

These are the endpoints available in the Products and Categories Module.

- R201 - Homepage products */homepage*
- R202 - Products from a category */products*
- R203 - Search action
- R204 - Filter products */products*

R201: Homepage products

URL	/	
Description	Get products to display on the homepage	
Method	GET	
UI	UI01	
AJAX Calls	R402	
Permissions	PUB	

URL	/
Observations	Whenever the user clicks on the product, the product page is open as in R401

R202: Products from a category

URL	/{category_name}/{page}	
Description	Lists all products of the specified category.	
Method	GET	
Parameters	+category_name:string	Category name
	+page:integer	Page number
UI	UI02	
AJAX Calls	R204	R402

Permissions PUB Observations Whenever the user clicks on the product, the product page is open as in [R401](#)

R203: Search action

URL		
Description	Searches products similar to the name given - can be accessed anywhere on the website.	
Method	GET	
Parameters	?product_name:string	Product name
Redirects	UI02	Success
	UI02	Error
Permissions	PUB	

R204: Filter products

URL	/{category_name}/{property_value}	
Description	Lists all products of the specified category.	
Method	GET	
Parameters	+category_name:string	Category name
	?price:double	Maximum price range
	?brand:string[]	Product brand
	?property_values:string[]	Specific characteristic of the products (like storage size)
Response Body	JSON201	
Permissions	PUB	

Module M03: Management Area

Endpoints

These are the endpoints available in the Management Area Module.

- R301 - Admin's page */admin*
- R302 - Update Purchases's State Action */admin/purchases*
- R303 - Delete Property Action */admin/property*
- R304 - Add Property Action */admin/property*
- R305 - Add Category Action */admin/category*
- R306 - Delete Category Action */admin/category*
- R307 - Update Category's Properties Action */admin/category*
- R308 - Delete FAQ Action */admin/faq*
- R309 - Add FAQ Action */admin/faq*
- R310 - Update Navigation Categories Action */admin/navcategory*

R301 - Admin's page

URL	/admin			
Description	Get Management Area page.			
Method	GET			
UI	UI07			
AJAX Calls	R302	R303	R304	R305
	R306	R307	R308	R309
	R310			
Permissions	ADM			
Observations	Whenever the user clicks on the product, the product page is open as in R401			

R302 - Update Purchases' State Action

URL	/admin/purchases	
Description	Update purchase's state.	
Method	PUT	
Request Body	+ids: integer[]	purchases ids to be updated
	+status: string[]	purchases new status
Response Body	JSON301	
Permissions	ADM	

R303 - Delete Property Action

URL	/admin/property	
Description	Delete a certain property.	
Method	DELETE	
Request Body	+id: integer	property id
Returns	200 OK	The property was successfully deleted
	404 Not Found	Error. No property with the specified primary key exists.
Permissions	ADM	

R304 - Add Property Action

URL	/admin/property	
Description	Add Property Redirects to the admin page either on success or on failure, showing a message in case of error.	
Method	POST	
Request Body	+name: string	property's name
Response Body	JSON302	
Permissions	ADM	

R305 - Add Category Action

URL	/admin/category	
Description	Add Category Redirects to the admin page either on success or on failure, showing a message in case of error.	
Method	POST	
Request Body	+name: string	category's name
Response Body	JSON303	
Permissions	ADM	

R306 - Delete Category Action

URL	/admin/category	
Description	Delete a certain category.	
Method	DELETE	

Request Body	+id: integer	category id
Returns	200 OK	The category was successfully deleted
	404 Not Found	Error. No category with the specified primary key exists.
Permissions	ADM	

R307 - Update Category's Properties Action

URL	/admin/category	
Description	Update category's properties.	
Method	PUT	
Request Body	+cat_id: integer	category id
	+properties_id: integer[]	properties ids
	+is_property_required: boolean[]	booleans that tells if property is required in this category or not.
Returns	200 OK	The category were successfully updated.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No category with the specified primary key exists.
Permissions	ADM	

R308 - Delete FAQ Action

URL	/admin/faq	
Description	Delete a certain faq.	
Method	DELETE	
Request Body	+id: integer	faq id
Returns	200 OK	The faq was successfully deleted
	404 Not Found	Error. No faq with the specified primary key exists.
Permissions	ADM	

R309 - Add FAQ Action

URL	/admin/faq	
Description	Add FAQ. Redirects to the admin page either on success or on failure, showing a message in case of error.	
Method	POST	

Request	+question: string	FAQ's question
Body	+answer: string	FAQ's answer
Response	JSON304	
Body		
Permissions	ADM	

R310 - Update Navigation Categories Action

URL	/admin/navcategory	
Description	Update which categories are on navigation menu.	
Method	POST	
Request Body	+id: integer[]	categories to be on navigation menu ids
Response Body	JSON305	
Permissions	ADM	

Module M04: Product and Reviews

Endpoints

These are the endpoints available in the Product and Reviews Module.

- R401 - Product Page */product/{id}*
- R402 - Add to Cart Action */product/{id}*
- R403 - Add to Wishlist Action */product/{id}*
- R404 - Add Review Action */product/{id}*
- R405 - Edit Review Action */product/{id}*
- R406 - Delete Review Action */product/{id}*
- R407 - Add Product Form */add_product*
- R408 - Add Product Action */add_product*
- R409 - Edit Product Form */product/{id}/edit*
- R410 - Edit Product Action */product/{id}/edit*

R401: Product Page

URL	/product/{id}/{page}	
Description	This web resource displays a single product.	
Method	GET	
Parameters	+id: integer	Product id
	+page: integer	Review Page
UI	UI03	

AJAX Calls [R402](#) [R403](#) [R404](#) [R405](#) [R406](#)

Permissions PUB

R402: Add to Cart Action

URL	/product/{id}/cart	
Description	This web resource adds the product to the cart.	
Method	POST	
Parameters	+id: integer	Product id
Returns	200 OK	The product was successfully added to the cart.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No product with the specified primary key exists.
Permissions	USR	

R403: Add to Wishlist Action

URL	/product/{id}/wishlist	
Description	This web resource adds the product to the wishlist.	
Method	POST	
Parameters	+id: integer	Product id
Returns	200 OK	The product was successfully added to the wishlist.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No product with the specified primary key exists.
Permissions	USR	

R404: Add Review Action

URL	/product/{id}/review	
Description	Web resource that adds a review to a product. Redirects to the product page on success or failure, showing a message in case of error.	
Method	POST	
Parameters	+id: integer	Product id
Request Body	+user_id: integer	User id
	+product_id: integer	Product id
	+score: integer	New score

	+title: string	New title
	+content: string	New content
Response Body	JSON401	
Permissions	USR	

R405: Edit Review Action

URL	/product/{id}/review	
Description	Web resource that edits a review of a product. Redirects to the product page on success or failure, showing a message in case of error.	
Method	PUT	
Parameters	+id: integer	Product id
	+review_id: integer	Review id
Request Body	?score: integer	New score
	?title: string	New title
	?content: string	New content
Response Body	JSON401	
Permissions	USR	

R406: Delete Review Action

URL	/product/{id}/review	
Description	Web resource that deletes a review of a product. Redirects to the product page on success or failure, showing a message in case of error.	
Method	DELETE	
Parameters	+id: integer	Product id
Request Body	+review_id: integer	Review id
Returns	200 OK	The review was successfully deleted.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No review with the specified primary key exists.
Permissions	USR/ADM	

R407: Add Product Form

URL	/add_product
Description	This web resource displays the add product page.
Method	GET
UI	UI08
SUBMIT	R408
Permissions	ADM

R408: Add Product Action

URL	/add_product	
Description	This web resource creates a product. Redirects to the product page on success or the add product page on failure, showing a message in case of error. It can have multiple photos and properties associated to values.	
Method	POST	
Request Body	+name: string	New name
	+price: double	New price
	+quantity: integer	New quantity
	+brand: string	New brand
	+photos: string[]	New photos
	+property_value: string[]	New property and value
Redirects	UI03	Success
	UI08	Error
Permissions	ADM	

R409: Edit Product Form

URL	/product/{id}/edit	
Description	This web resource displays the edit product page.	
Method	GET	
Parameters	+id: integer	Product id
UI	UI08	
SUBMIT	R410	
Permissions	ADM	

R410: Edit Product Action

URL	/product/{id}/edit	
Description	This web resource edits a product. Redirects to the product page on success or stays on the same page on failure, showing a message in case of error. It can have multiple photos and properties associated to values.	
Method	PUT	
Request Body	?name: string	New name
	?price: double	New price
	?quantity: integer	New quantity
	?brand: string	New brand
	?photos: string[]	New photos
	?property_value: string[]	New property and value
Redirects	UI03	Success
	UI08	Error
Permissions	ADM	

Module M05: Static Pages

Endpoints

These are the endpoints available in the Static Pages Module.

- R501 - FAQ Page */faqs*
- R502 - About Page */about*
- R503 - Contact form */contact*
- R504 - Contact form action */contact*

R501: FAQ page

URL	<i>/faqs</i>
Description	Get FAQ page.
Method	GET
UI	UI13
Permissions	PUB

R502: About Page

URL	<i>/about</i>
Description	Get About page.

URL	/about
Method	GET
UI	UI14
Permissions	PUB

R503: Contact form

URL	/contact
Description	Page with a form to make contact with the website administrators
Method	GET
UI	UI12
SUBMIT	R504
Permissions	PUB

R504: Contact form action

URL	/contact	
Description	Web resource that sends a message to the website administrators. Redirects to the homepage on success and to the contact form page on failure.	
Method	POST	
Request Body	+name:string	Name of the sender
	+email:string	Email of the sender
	+subject:string	Subject of the message
	+message:string	Message content
Redirects	R201	Success
	R503	Error
Permissions	PUB	

Module M06: Cart and Wishlist

Endpoints

These are the endpoints available in the Cart and Wishlist Module.

- R601 - Cart Form */cart*
- R602 - Cart Checkout Action */cart*
- R603 - Cart Delete Product */cart*
- R604 - Wishlist Page */wishlist*

- R605 - Wishlist Add To Cart Action */wishlist*
- R606 - Wishlist Delete Product */wishlist*

R601: Cart Form

URL	/cart	
Description	This web resource displays the cart.	
Method	GET	
Parameters	+id:integer	User id
AJAX Calls	R603	
UI	UI06	
Permissions	USR	

R602: Cart Checkout Action

URL	/cart	
Description	This web resource checks out the cart.	
Method	POST	
Request Body	+user_id: integer	User id
	+total: double	Total amount to pay
	+id_address: integer	Delivery address id
	+id_delivery: integer	Delivery type id
	+product_quantity: string[]	Product id and its quantity
Returns	200 OK	Successful checkout.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error.
Permissions	USR	

R603: Cart Delete Product

URL	/cart	
Description	This web resource deletes product from cart.	
Method	DELETE	
Request Body	+product_id: integer	Product id
	+user_id: integer	User id

Returns	200 OK	The product was successfully removed from the cart.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No product with the specified primary key exists in the user cart.
Permissions	USR	

R604: Wishlist Page

URL	/wishlist	
Description	This web resource displays the wishlist.	
Method	GET	
Parameters	+id:integer	User id
AJAX Calls	R605	
UI	UI05	
Permissions	USR	

R605: Wishlist Add to Cart Action

URL	/wishlist	
Description	This web resource adds a product in the wishlist to the cart.	
Method	POST	
Request Body	+product_id: integer	Product id
	+user_id: integer	User id
Returns	200 OK	The product was successfully added to the cart.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No product with the specified primary key exists.
Permissions	USR	

R606 - Wishlist Delete Product

URL	/wishlist	
Description	Delete product of wishlist.	
Method	DELETE	
Request Body	+product_id: integer	Product id

	+user_id: integer	User id
Returns	200 OK	The product was successfully removed from the wishlist.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No product with the specified primary key exists in the user wishlist.
Permissions	USR	

4. JSON/XML Types

The structure of the JSON formatted answers must be documented as illustrated below.

JSON101: Get address : {id, name, street_address, zip_code, city_name}[]

```
{
  "id": "1",
  "name": "name",
  "street_address": "R. Albano manuel, nr 41",
  "zip_code": "4000-278",
  "city_name": "Porto"
}
```

JSON201: Get filtered products : {products}[]

```
{
  "products": [
    {
      "id": "3",
      "name": "iPhone X",
      "path": "/fotos/iphone.jpg",
      "score": "4.5",
      "price": "1024"
    },
    {
      "id": "5",
      "name": "Samsung Galaxy S9",
      "path": "/fotos/samsungS9.jpg",
      "score": "4",
      "price": "899"
    }
  ]
}
```

JSON301: Get on hold purchases : {onHoldPurchases}[]

```

{
  "onHoldPurchases": [
    {
      "id": "1",
      "username": "johndoe",
      "date": "18/02/17",
      "status": "shipped",
      "total": "2000",
      "address" : "R. Dr. Roberto Frias, 4200-465 Porto, Portugal"
      "products" : [
        {
          "name" : "Apple iPhone X - 256GB Silver",
          "price" : "1359,99"
        },
        {
          "name" : "Samsung Galaxy S8 - G950FZ - Midnight Black",
          "price" : "819,99"
        }
      ]
    },
    {
      "id": "2",
      "username": "johndoe",
      "date": "18/02/17",
      "status": "shipped",
      "total": "2000",
      "address" : "R. Dr. Roberto Frias, 4200-465 Porto, Portugal"
      "products" : [
        {
          "name" : "Apple iPhone X - 256GB Silver",
          "price" : "1359,99"
        },
        {
          "name" : "Samsung Galaxy S8 - G950FZ - Midnight Black",
          "price" : "819,99"
        }
      ]
    }
  ]
}

```

JSON302: Get new property : {id,name}[]

```

{
  "id": "1",
  "name": "Storage"
}

```

JSON303: Get new category : {id,name}[]

```
{
  "id": "1",
  "name": "Computers"
}
```

JSON304: Get new faq : {id, question, answer}[]

```
{
  "id": "1",
  "question": "Lorem sit amet, duo pertinax maluisset evertitur et?",
  "answer": "Id ludus bonorum eligendi vix."
}
```

JSON305: Get navigation menu categories : {navCategories}[]

```
{
  "navCategories": [
    {
      "id": "1",
      "name": "Computers"
    },
    {
      "id": "2",
      "name": "Tablets"
    }
  ]
}
```

JSON401: Get review : {id, score, title, content}[]

```
{
  "id": "1",
  "score": "4",
  "title": "Ludus bonorum",
  "content": "Lorem sit amet, duo pertinax maluisset evertitur et."
}
```

Revision history

Changes made to the first submission:

1. Modal box's actions were changed to be made with AJAX calls.
 2. The URLs for the resources on the same page with the same method are now different.
 3. The unnecessary forms were removed.
 4. Delete actions don't return "400 Bad Request" anymore.
 5. Pages number in the URL of resources with pagination
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