

A7: High-level architecture. Privileges. Web resources specification

1. Overview

Identify and overview the modules that will be part of the application.

M01: Authentication and Individual Profile	Web resources associated with user authentication and individual profile management, includes the following system features: login/logout, registration, view and edit personal profile information.
M02: Products	Web resources associated with available items, includes the following system features: items list, search and filter, view, edit and delete items.
M03: Reviews and Wish list	Web resources associated with reviews and wish list, includes the following system features: add comment, answer a comment, list and delete comments; add and remove items from the wish list, list a customer's wish list.
M04: Purchase	Web resources associated with purchases, includes the following system features: view purchase history, make a purchase, list a shopping cart, update loyalty points.
M05: User	Web resources associates with user management, specifically: moderate comments

Administration and Static pages and profile pictures, ban users from using the comment section, Web resources with static content are associated with this module: configurator, about, contact, services, faq and 404.

2. Permissions (Define the permissions used by each module, necessary to access its data and features)

This section defines the permissions used in the modules to establish the conditions of access to resources.

VISI	Visitor	Group of users without privileges
CUST	Customer	Group of users that can update their profiles and have privileges to buy items
MOD	Moderator	Group of moderators that can delete comments and ban users from the comment section
ADMIN	Administrator	Group of administrators that can update the product database and manage moderators

3. Modules

This section documents each web resource of each module, indicating the URL, HTTP methods, the possible parameters, interfaces with the user (referring to the A3 artefact) — or JSON responses in the event of APIs.

Module M01: Authentication and Individual Profile

Endpoints of Module Authentication and Individual Profile

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

- R101: Login Form /login
- R102: Login Action /login
- R103: Logout Action /logout
- R104: Register Form /register
- R105: Register Action /register
- R106: View Profile /users/{id}
- R107: Edit Profile Form /users/{id}/edit
- R108: Edit Profile Action /users/{id}/
- R109: Password Reset Form /password/reset
- R110: Password Reset Action /password/reset

R101: Login Form

URL	/login
Description	Page with a form to login to a user account.
Method	GET
UI	UI12
SUBMIT	R102
Permissions	VISI

R102: Login Action

URL	/login
Description	This web resource logs the user into the system. Redirects to the user profile page on success and the login form on failure.
Method	POST

Request Body	+username:String	Username
	+password:String	Password
Redirects	R106	Success
	R101	Error
Permissions	VISI	

R103: Logout Action

URL	/logout	
Description	This web resource logs the authenticated user out of the system. Redirects to the homepage on success.	
Method	POST	
Request Body	+username:String	Username
Redirects	R106	
Permissions	CUST, MOD, ADMIN	

R104: Register Form

URL	/register	
Description	Page with a form to register a new user account.	
Method	GET	
UI	UI13	
SUBMIT	R105	
Permissions	VISI	

R105: Register Action

URL	/register	
Description	This web resource inserts the user into the system. Redirects to the user profile page on success and the register form on failure.	
Method	POST	
Request Body	+username:String	Username
	+password:String	Password
	+confirmPassword:String	Password Confirmation
	+firstName:String	First Name
	+lastName:String	Last Name
	+email:String	Email
	+address:String	Adress
Redirects	R106	Success
	R104	Error
Permissions	VISI	

R106: View Profile

URL	/users/{id}	
Description	Shows the user's individual profile page	
Method	GET	
Parameters	+id:Integer	user table primary key

UI	UI14
Permissions	CUST

R107: Edit Profile Form

URL	/users/{id}/edit	
Description	Shows the user's individual profile page with editable fields.	
Method	GET	
Parameters	+id:Integer	user table primary key
UI	UI14	
SUBMIT	R108	
Permissions	CUST	

R108: Edit Profile Action

URL	/register	
Description	Web resource that changes user profile info based on the input received. Redirects to the user profile on success and edit profile page on failure.	
Method	POST	
Request Body	+password:String	New Password
	+confirmPassword:String	New Password Confirmation
	+firstName:String	New First Name
	+lastName:String	New Last Name

Redirects	+email:String	New Email
	+address:String	New Address
	+picture:String	New profile picture
	R106	Success
	R107	Error
Permissions	CUST	

R109: Password recovery Form

URL	/password/reset	
Description	Page with a form to request a token to reset the password.	
Method	GET	
UI	UI12	
SUBMIT	R110	
Permissions	VISI	

R110: Password recovery Action

URL	/password/reset	
Description	Web resource that sends a reset password link to the specified email.	
Method	POST	
Request Body	+email:String	User email
	UI01	Success

Redirects

R109

Error

Permissions

VISI

Module M02: Products**Endpoints of Product pages**

- R201: Homepage /home
- R202: Search product API /api/products
- R203: Compare Products products/compare
- R204: List Products with filter /products/
- R205: Single Product /product/{id}
- R206: Edit Product Form /product/{id}/edit
- R207: Edit Product Action /product/{id}
- R208: Add Product Form /product/create
- R209: Add Product Action /product/
- R210: Delete Product Action /product/{id}

R201: Homepage

URL	/home
Description	Homepage
Method	GET
AJAX Calls	R202
UI	UI01
Permissions	VISI

R202: Search product API

URL	/api/products
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Description	This web resource searches the system for products and returns the results.	
Method	GET	
Parameters	+categoryID:Integer	Category
	+productBrand:String	Product Brand
	+minPrice:Integer	Price Lower Bound
	+maxPrice:String	Price Higher Bound
	+productAvailability:boolean	Product Availability
Response Body	JSON202	
Permissions	VISI	

R203: Compare Selected Products

URL	/products/compare
Description	Product Comparator Page
Method	GET
UI	UI07
Permissions	VISI

R204: Products with filter

URL	/products
Description	Page with a list of filtered products
Method	GET

Parameters	?categoryID:Integer	Category
	?productBrand:String	Product Brand
	?minPrice:Integer	Price Lower Bound
	?maxPrice:String	Price Higher Bound
	?productAvailability:boolean	Product Availability
AJAX Calls	R202	
UI	UI06	
Permissions	VISI	

R205: Single Product

URL	/product/{id}
Description	Product Page
Method	GET
Parameters	+productId:Integer Product Identifier
UI	UI08
Permissions	VISI

R206: Edit Product Form

URL	/product/{id}/edit
Description	Product page with editable fields
Method	GET
Parameters	+id:Integer Product Identifier
UI	UI17

SUBMIT

R207

Permissions

ADMIN

R207: Edit Product Action**URL**

/product/{id}

Description

Web resource that changes a product's info based on the input received. Redirects to the product page on success and edit product page on failure.

Method

PUT

**Request
Body**

?title:String

Product Title

?

description:String

Product's description

?price:String

Product's price

?discPrice:String

Product's discount price

?

attribute:String[]

Values of the attributes of the product

?picture:String[]

Paths to the product pictures

Redirects

R205

Success

R206

Error

Permissions

ADMIN

R208: Add Product Form**URL**

/product/create

Description

Product page with empty editable fields

Method	GET
UI	UI17
SUBMIT	R209
Permissions	ADMIN

R209: Add Product Action

URL	/product/	
Description	Web resource that adds a product and it's info, based on the input received, to the database. Redirects to the product page on success and add product page on failure.	
Method	POST	
Request Body	+title:String	Product Title
	+description:String	Product's description
	+price:String	Product's price
	+discPrice:String	Product's discount price
	+attribute:String[]	Values of the attributes of the product
	+picture:String[]	Paths to the product pictures
Redirects	R205	Success
	R208	Error
Permissions	ADMIN	

R210: Delete Product Action

URL	/product/{id}	
Description	This web resource removes the work from the system. Redirects to the Homepage on success and the View Work page on failure.	
Method	DELETE	
Parameters	+id:Integer	Product Identifier
	200 OK	Product was successfully deleted.
Returns	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No item with the specified primary key exists.
Permissions	ADMIN	

Module M03: Reviews and Wish list

Endpoints of Reviews and Wish list

These are the endpoints available in the Reviews and Wish list Module.

- R301: Write a comment form /product/{id}
- R302: Write a comment action /product/{id}/comment
- R303: Flag comment /comment/{id}/flag
- R304: List comments /product/{id}/comments
- R305: Delete comment /comment/{id}
- R306: Add an item to the wish list /users/{id}/favorites
- R307: Remove an item from the wish list /users/{id}/favorites
- R308: List a customer's wish list /users/{id}/favorites

R301: Write a comment form

URL	/product/create
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Description	Product page comment section form
Method	GET
UI	UI09
Parameters	+id:integer Product to be commented identifier
SUBMIT	R302
Permissions	CUST

R302: Write a comment action

URL	/product/{id}/comment
Description	This web resource creates a comment based on the input received.
Method	POST
Parameters	+id: integer Product id.
Request Body	+user_id: text User that comments.
	+parent_id: integer Parent comment or new comment if null.
Redirects	UI09 Success
	UI09 Error
Permissions	CUST

R303: Flag comment

URL	/comment/{id}/flag
Description	Flag comment.

Method	POST
Parameters	+id: integer Comment id.
Permissions	CUST, MOD

R304: List comments

URL	/product/{id}/comments
Description	List comments of a product.
Method	GET
Parameters	+id: integer Product id.
Response body	JSON304
Permissions	VISI, CUST, MOD, ADMIN

R305: Delete comment

URL	/comment/{id}
Description	Delete comment of a product.
Method	DELETE
Parameters	+id: integer Comment id.
Permissions	MOD

R306: Add an item to the wish list

URL	/users/{id}/favorites
Description	Choose a product as a favorite.
Method	PUT

Parameters	+id: text	Customer id.
Request Body	+product_id: integer	Product selected as a favorite.
Returns	200 OK	Product was successfully added as a favorite.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No item with the specified primary key exists.
Permissions	CUST	

R307: Remove an item from the wish list

URL	/users/{id}/favorites	
Description	Remove an item from the wish list.	
Method	DELETE	
Parameters	+id: text	Customer id.
Permissions	CUST	

R308: List a customer's wish list

URL	/users/{id}/favorites	
Description	List a customer's wish list.	
Method	GET	
Parameters	+id: text	Customer identifier.
Response body	JSON202	

UI	UI16
Permissions	CUST

Module M04: Purchase

Endpoints of Purchase

These are the endpoints available in the Purchase Module.

- R401: View purchase history /users/{id}/purchasehistory
- R402: Make a purchase form /users/{id}/purchase
- R403: Make a purchase action /users/{id}/purchase/checkout
- R404: List a shopping cart /users/{id}/shoppingCart
- R405: Update loyalty points /users/{id}/loyaltypoints

R401: View purchase history

URL	/users/{id}/purchasehistory	
Description	Get all my purchase history.	
Method	GET	
Parameters	+id: integer	Username
UI	UI15	
Permissions	CUST	

R402: Make a purchase form

URL	/users/{id}/purchase	
Description	Page with a form to input required information to checkout a purchase.	
Method	GET	

Parameters	+id:integer	Identifier for the user making the purchase
SUBMIT	R403	
UI	UI11	
Permissions	CUST	

R403: Make a purchase action

URL	/users/{id}/purchase/checkout	
Description	Purchase the current shopping cart.	
Method	POST	
Parameters	+id: integer	Customer Username.
Request Body	+productId:integer[]	List of products purchased.
Redirects	UI15	Success
	R402	Error
Permissions	CUST	

R404: List a shopping cart

URL	/shoppingCart	
Description	List a shopping cart.	
Method	GET	
Parameters	+id: integer	Customer Username.
UI	UI10	

Permissions VISI, CUST

R405: Update loyalty points

URL	/users/{id}/loyaltypoints	
Description	Web resource used to update a customers loyalty points amount	
Method	POST	
Parameters	+id: integer	Customer id.
Request Body	+loyaltyPoints: integer	Number of loyaltyPoints to add.
Returns	200 OK	The loyalty points was successfully updated.
	400 Bad Request	Error. Error message is specified via a HTTP header.
	404 Not Found	Error. No item with the specified primary key exists.
Permissions	CUST	

Module M05: User Administration and Static pages

Endpoints of User Administration and Static pages

These are the endpoints available in the User Administration and Static pages Module.

- R501: Configurator /configurator
- R502: About /about
- R503: Contact /contact
- R504: FAQ /faq

- R505: 404 /404
- R506: Product Overview /admin/products
- R507: Moderators Overview /admin/moderators
- R508: Flagged Comments View /moderator/comments
- R509: Banned Users /moderator/banned
- R510: Moderator Homepage /moderator
- R511: Administrator Homepage /administrator

R501: Configurator

URL	/configurator
Description	Get configurator page.
Method	GET
UI	UI05
Permissions	VISI

R502: About

URL	/about
Description	Get about page.
Method	GET
UI	UI02
Permissions	VISI

R503: Contact

URL	/contact
Description	Get contact page.

Method	GET
UI	UI03
Permissions	VISI

R504: FAQ

URL	/faq
Description	Get faq page.
Method	GET
UI	UI04
Permissions	VISI

R505: 404

URL	/404
Description	Get 404 page.
Method	GET
UI	UI20
Permissions	PUB

R506: Product Overview

URL	/admin/products
Description	Web resource used to get all products for an administrator view.
Method	GET

Response body	JSON202
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Permissions	ADMIN
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R507: Moderators Overview

URL	/admin/moderators
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Description	Web resource used to get all active moderators for an administrator view.
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Method	GET
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Response body	JSON507
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Permissions	ADMIN
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R508: Flagged Comments View

URL	/moderator/comments
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Description	Flagged Comments View.
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Method	GET
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Response body	JSON508
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Permissions	MOD
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R509: Banned Customers

URL	/moderator/banned
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Description	Banned Customers.
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Method	GET
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Response body	JSON509
Permissions	MOD

R510: Moderator Homepage

URL	/moderator
Description	Moderator Homepage.
Method	GET
UI	UI18
AJAX Calls	R508, R509
Permissions	MOD

R511: Administrator Homepage

URL	/administrator
Description	Administrator Homepage.
Method	GET
UI	UI19
AJAX Calls	R506, R507
Permissions	ADMIN

4. JSON/XML Types

The JSON responses that will be used by the web resources.

JSON202: List of products

```
{
  "product": [
    {
      "sku":
      "title":
      "idCat":
      "price":
      "discountPrice":
      "rating":
      "stock":
    },
    {
      "sku":
      "title":
      "idCat":
      "price":
      "discountPrice":
      "rating":
      "stock":
    }
  ]
}
```

JSON304: List comments

```
{
  "comments": [
    {
      "id":
      "user_id":
      "date":
      "description":
    },
    {
      "id":
```



```
    "user_id":
    "date":
    "description":
  }
]
"answers": [
{
  "parent_id":
  "child_id":
},
{
  "parent_id":
  "child_id":
}
]
}
```

JSON507: Moderators Overview

```
{
  "moderator": [
    {
      "username":
      "email":
      "joinDate":
      "picture":
    },
    {
      "username":
      "email":
      "joinDate":
      "picture":
    }
  ]
}
```

JSON508: Flagged comments

```
{
  "comments": [
    {
      "id":
      "user_id":
      "date":
      "description":
    },
    {
      "id":
      "user_id":
      "date":
      "description":
    }
  ]
}
```

JSON509: Banned customers

```
{
  "banned": [
    {
      "username":
      "bannedDate":
      "moderator":
    },
    {
      "username":
      "bannedDate":
      "moderator":
    }
  ]
}
```

Web resources descriptors Do not include on the final artefact

- URL - Resource identifier, following the RESTful resource naming conventions
- Description - Describe the resource, when it's used and why
- UI - Reference to the A3 user interface used by the resource
- SUBMIT - Reference to the actions/requests integrated with the resource
- Method - HTTP request Method
- Parameters - Information that is sent through the URL, by a query string or path
- Request Body - Data associated and transmitted with each request
- Returns - HTTP code returned from a request
- Response Body - Data sent from the server, in response to a given request
- Permissions - Required permissions to access the resource

Revision history

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