EAP: Architecture Specification and Prototype

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

This artifact describes the architecture of the web application that will be constructed, including a list of resources, their characteristics, and the JSON response format. Using YAML, this specification adheres to the OpenAPI standard.

1. Overview

Identificator	**Name**	**Description**
M01	Authentication and user's profiles	Web resources associated with user's authentication and access to user's profile. Includes the following features: login/logout, registration and edit profile.
M02	Products	Web resources associated with the online store products. Includes the following features: add new products, remove products, edit products, search products, list products and view products
M03	Reviews and Wishlists	Web resources associated with reviews and wish lists. Includes the following features: add reviews, remove reviews, edit reviews and add or remove products from the wish list, view products from the wishlist.
M04	Orders and Carts	Web resources associated with product orders and carts. Includes the following features: add a product to cart, remove a product from cart, edit product quantity in cart, checkout cart.
M05	User Administration and Information Pages	Web resources associated with user management features, that includes: search, block and unblock users, view users profiles and their purchase history. Web resources associated with information pages include: view and edit contact, about and faq pages.

2. Permissions

Identificator	**Name**	**Description**
PUB	Public	Non-authenticated user without privileges.
USR	User	Authenticated user with authenticated privileges.
OWN	Owner	Authenticated user that owns an information and has its own privileges about that information(e.g.: own profile, own reviews).
ADM	Administrator	Authenticated user with system administrator privileges.

3. OpenAPI Specification

OpenAPI specification in YAML format to describe the web application's web resources.

Grab n' Build OpenAPI Specification

```yaml
openapi: 3.0.0

info:
 version: '0.1'
 title: 'LBAW GrabNBuild Web API'
 description: 'Web Resources Specification (A7) for GrabNBuild'

servers:
- url: http://lbaw.fe.up.pt
  description: Production server

externalDocs:
  description: Find more info here.
  url: https://web.fe.up.pt/~ssn/wiki/teach/lbaw/medialib/a07

tags:
 - name: 'M01: Authentication and Individual Profile'
 - name: 'M02: Products'
 - name: 'M03: Reviews and Wish list'
 - name: 'M04: Orders'
 - name: 'M05: User Administration and Information Pages'


paths:
 /login:
   get:
     operationId: R101
     summary: 'R101: Login Form'
     description: 'Provide login form. Access: PUB'
     tags:
       - 'M01: Authentication and Individual Profile'
     responses:
       '200':
         description: 'Ok. Show Log-in UI'
   post:
     operationId: R102
     summary: 'R102: Login Action'
     description: 'Processes the login form submission. Access: PUB'
     tags:
       - 'M01: Authentication and Individual Profile'

     requestBody:
       required: true
       content:
         application/x-www-form-urlencoded:
           schema:
             type: object
             properties:
               email:          # <!--- form field name
                 type: string
               password:    # <!--- form field name
```

```
                type: string
            required:
                 - email
                 - password

    responses:
      '302':
        description: 'Redirect after processing the login credentials.'
        headers:
          Location:
            schema:
              type: string
            examples:
              302Success:
                description: 'Successful authentication. Redirect to home page.'
                value: '/'
              302Error:
                description: 'Failed authentication. Redirect to login form.'
                value: '/login'

/logout:
  get:
    operationId: R103
    summary: 'R103: Logout Action'
    description: 'Logout the current authenticated user. Access: USR, ADM'
    tags:
      - 'M01: Authentication and Individual Profile'
    responses:
      '302':
        description: 'Redirect after processing logout.'
        headers:
          Location:
            schema:
              type: string
            examples:
              302Success:
                description: 'Successful logout. Redirect to login form.'
                value: '/login'

/register:
  get:
    operationId: R104
    summary: 'R104: Register Form'
    description: 'Provide new user registration form. Access: PUB'
    tags:
      - 'M01: Authentication and Individual Profile'
    responses:
      '200':
        description: 'Ok. Show Sign-Up UI'

  post:
    operationId: R105
    summary: 'R105: Register Action'
    description: 'Processes the new user registration form submission. Access:
```

```
 PUB'
      tags:
        - 'M01: Authentication and Individual Profile'

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                name:
                  type: string
                email:
                  type: string
                picture:
                  type: string
                  format: binary
              required:
                   - email
                   - password

      responses:
        '302':
          description: 'Redirect after processing the new user information.'
          headers:
            Location:
              schema:
                type: string
              examples:
                302Success:
                  description: 'Successful authentication. Redirect to home page.'
                  value: '/'
                302Failure:
                  description: 'Failed authentication. Redirect to register form.'
                  value: '/register'

  /users:
    get:
      operationId: R106
      summary: 'R106: View user profile'
      description: 'Show the individual user profile. Access: USR'
      tags:
        - 'M01: Authentication and Individual Profile'

      parameters:
        - in: path
          name: id
          schema:
            type: integer
          required: true

      responses:
        '200':
          description: 'Ok. Show User Profile UI'

  /users/edit/{id}:
    post:
      operationId: R107
      summary: 'R107: Edit Action'
      description: 'Processes the new user profile info form submission. Access:
OWN'
      tags:
        - 'M01: Authentication and Individual Profile'

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                name:
                  type: string
                picture:
                  type: string
                  format: binary

      responses:
        '302':
          description: 'Redirect after processing the new user information.'
          headers:
            Location:
              schema:
                type: string
              examples:
                302Success:
                  description: 'Successful authentication. Redirect to user
profile.'
                  value: '/users'
                302Failure:
                  description: 'Failed authentication. Redirect to user profile.'
                  value: '/users'

  /api/products:
     get:
       operationId: R202
       summary: 'R202: Search Products API' #different search functions per type of
product? since different specs
       description: 'Searches for products and returns the results as JSON. Access:
PUB.'

       tags:
         - 'M02: Products'

       parameters:
         - in: query
           name: query
```

```yaml
          description: String to use for full-text search
          schema:
            type: string
          required: false
        - in: query
          name: price
          description: Float with the product price
          schema:
            type: number
          required: false
        - in: query
          name: classification
          description: Integer corresponding to the product classification
          schema:
            type: integer
          required: false

      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:
                    id:
                      type: string
                    title:
                      type: string
                    #obs:
                    #  type: string
                    #year:
                    #  type: string
                    #owner:
                    #  type: string
                    #type:
                    #  type: string

 /api/cpu:
    get:
      operationId: R203
      summary: 'R203: Search CPU API'
      description: 'Searches for CPUs and returns the results as JSON. Access: PUB.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: query
          description: String to use for full-text search
          schema:
            type: string
          required: false
        - in: query
          name: basefreq
          description: Float with the basefreq
          schema:
            type: number
          required: false
        - in: query
          name: turbofreq
          description: Float with the turbofreq
          schema:
            type: number
          required: false
        - in: query
          name: socket
          description: String for socket
          schema:
            type: string
          required: false
        - in: query
          name: threads
          description: Integer corresponding to threads
          schema:
            type: integer
          required: false
        - in: query
          name: cores
          description: Integer corresponding to cores
          schema:
            type: integer
          required: false
        - in: query
          name: price
          description: Float with the product price
          schema:
            type: number
          required: false
        - in: query
          name: classification
          description: Integer corresponding to the product classification
          schema:
            type: integer
          required: false

      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:

 /api/gpu:
    get:
      operationId: R204
      summary: 'R204: Search GPU API'
      description: 'Searches for GPUs and returns the results as JSON. Access: PUB.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: query
          description: String to use for full-text search
          schema:
            type: string
          required: false
        - in: query
          name: memory
          description: Int with memory
          schema:
            type: integer
          required: false
        - in: query
          name: coreclock
          description: Int with the coreclock
          schema:
            type: integer
          required: false
        - in: query
          name: boostclock
          description: Int for boostclock
          schema:
            type: integer
          required: false
        - in: query
          name: boostclock
          description: Integer corresponding to boostclock
          schema:
            type: integer
          required: false
        - in: query
          name: hdmiports
          description: Integer corresponding to hdmi ports
          schema:
            type: integer
          required: false
        - in: query
          name: dispports
          description: Integer corresponding to display ports
          schema:
            type: integer
          required: false
        - in: query
          name: price
          description: Float with the product price
          schema:
            type: number
          required: false
        - in: query
          name: classification
          description: Integer corresponding to the product classification
          schema:
            type: integer
          required: false

      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:

 /api/motherboard:
    get:
      operationId: R205
      summary: 'R205: Search Motherboards API'
      description: 'Searches for motherboards and returns the results as JSON. Access: PUB.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: query
          description: String to use for full-text search
          schema:
            type: string
          required: false
        - in: query
          name: socket
          description: String for socket
          schema:
            type: string
          required: false
        - in: query
          name: type
          description: String for motherboardtype
          schema:
            type: string
          required: false
        - in: query
          name: price
          description: Float with the product price
          schema:
            type: number
          required: false
        - in: query
          name: classification
          description: Integer corresponding to the product classification
          schema:
            type: integer
          required: false

      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:

 /api/storage:
    get:
      operationId: R206
      summary: 'R206: Search Storage API'
      description: 'Searches for storage and returns the results as JSON. Access:
PUB.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: query
          description: String to use for full-text search
          schema:
            type: string
          required: false
        - in: query
          name: capacity
          description: Int for storage capacity
          schema:
            type: integer
          required: false
        - in: query
          name: type
          description: String for storagetype
          schema:
            type: string
          required: false
        - in: query
          name: price
          description: Float with the product price
          schema:
            type: number
          required: false
        - in: query
          name: classification
          description: Integer corresponding to the product classification
          schema:
            type: integer
          required: false

      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:

 /api/case:
    get:
      operationId: R207
      summary: 'R207: Search Case API'
      description: 'Searches for cases and returns the results as JSON. Access:
PUB.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: query
          description: String to use for full-text search
          schema:
            type: string
          required: false
        - in: query
          name: color
          description: String for color
          schema:
            type: string
          required: false
        - in: query
          name: weight
          description: String for weight
          schema:
            type: string
          required: false
        - in: query
```

```
          name: type
          description: String for case type
          schema:
            type: string
          required: false
        - in: query
          name: price
          description: Float with the product price
          schema:
            type: number
          required: false
        - in: query
          name: classification
          description: Integer corresponding to the product classification
          schema:
            type: integer
          required: false

      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:

 /api/cooler:
    get:
      operationId: R208
      summary: 'R208: Search Cooler API'
      description: 'Searches for coolers and returns the results as JSON. Access:
PUB.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: query
          description: String to use for full-text search
          schema:
            type: string
          required: false
        - in: query
          name: type
          description: String for cooler type
          schema:
            type: string
          required: false
        - in: query
          name: price
```

```yaml
     description: Float with the product price
     schema:
      type: number
     required: false
    - in: query
     name: classification
     description: Integer corresponding to the product classification
     schema:
      type: integer
     required: false

   responses:
    '200':
     description: Success
     content:
      application/json:
       schema:
        type: array
        items:
         type: object
         properties:

 /api/powersupply:
  get:
   operationId: R209
   summary: 'R209: Search PowerSupply API'
   description: 'Searches for power supplies and returns the results as JSON. Access: PUB.'

   tags:
    - 'M02: Products'

   parameters:
    - in: query
     name: query
     description: String to use for full-text search
     schema:
      type: string
     required: false
    - in: query
     name: wattage
     description: Int for wattage
     schema:
      type: integer
     required: false
    - in: query
     name: certification
     description: String for certification
     schema:
      type: string
     required: false
    - in: query
     name: type
     description: String for supply type
```

```
          schema:
            type: string
          required: false
        - in: query
          name: price
          description: Float with the product price
          schema:
            type: number
          required: false
        - in: query
          name: classification
          description: Integer corresponding to the product classification
          schema:
            type: integer
          required: false

      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:


 #addproduct beggining
 /addprod:
    post:
      operationId: R212
      summary: 'R212: Add Generic Product'
      description: 'Adds a generic product, redirects to define specifics. Access:
ADM.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: name
          description: Product name
          schema:
            type: string
          required: true
        - in: query
          name: price
          description: Float with the product price
          schema:
            type: number
          required: true
        - in: query
          name: brand
          description: Product brand
          schema:
            type: string
          required: true
        - in: query
          name: image
          description: Product image
          schema:
            type: string
          required: true
        - in: query
          name: size
          description: Product size
          schema:
            type: string
          required: true
        - in: query
          name: stock
          description: Starting stock
          schema:
            type: integer
          required: true
        - in: query
          name: type
          description: Product type
          schema:
            type: string
          required: true

      responses:
        '302':
          description: 'Redirect after setting basic prod features'
          headers:
            Location:
              schema:
                type: string
              examples:
                302Success:
                  description: 'Successful authentication. Redirect to prod.'
                  value: '/addprod/{type}'
                302Failure:
                  description: 'Failed authentication. Redirect addprod.'
                  value: '/addprod'

 /addprod/cpu:
    post:
      operationId: R213
      summary: 'R213: Add CPU'
      description: 'Sets CPU features after setting initally prod features.
Access: ADM.'

      tags:
        - 'M02: Products'
      parameters:
        - in: query
          name: basefreq
          description: Float with the basefreq
          schema:
            type: number
          required: true
        - in: query
          name: turbofreq
          description: Float with the turbofreq
          schema:
            type: number
          required: true
        - in: query
          name: socket
          description: String for socket
          schema:
            type: string
          required: true
        - in: query
          name: threads
          description: Integer corresponding to threads
          schema:
            type: integer
          required: true
        - in: query
          name: cores
          description: Integer corresponding to cores
          schema:
            type: integer
          required: true

      responses:
        '200':
          description: Success

 /addprod/gpu:
    post:
      operationId: R214
      summary: 'R214: Add GPU Product'
      description: 'Sets GPU features after setting initally prod features. Access: ADM.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: memory
          description: Int with memory
          schema:
            type: integer
          required: true
        - in: query
```

```
          name: coreclock
          description: Int with the coreclock
          schema:
            type: integer
          required: true
        - in: query
          name: boostclock
          description: Int for boostclock
          schema:
            type: integer
          required: true
        - in: query
          name: boostclock
          description: Integer corresponding to boostclock
          schema:
            type: integer
          required: true
        - in: query
          name: hdmiports
          description: Integer corresponding to hdmi ports
          schema:
            type: integer
          required: true
        - in: query
          name: dispports
          description: Integer corresponding to display ports
          schema:
            type: integer
          required: true

      responses:
        '200':
          description: Success

 /addprod/motherboard:
    post:
      operationId: R215
      summary: 'R215: Add Motherboard Product'
      description: 'Sets Motherboard features after setting initally prod features. Access: ADM.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: socket
          description: String for socket
          schema:
            type: string
          required: true
        - in: query
          name: type
          description: String for motherboardtype
          schema:
            type: string
          required: true

      responses:
        '200':
          description: Success

 /addprod/storage:
    post:
      operationId: R216
      summary: 'R216: Adds Storage Features after Base Prod Specification'
      description: 'Sets Storage features after setting initally prod features.
Access: ADM.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: capacity
          description: Int for storage capacity
          schema:
            type: integer
          required: true
        - in: query
          name: type
          description: String for storagetype
          schema:
            type: string
          required: true

      responses:
        '200':
          description: Success

 /addprod/case:
    post:
      operationId: R217
      summary: 'R217: Add Case Product'
      description: 'Sets Case features after setting initally prod features.
Access: ADM.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: color
          description: String for color
          schema:
            type: string
          required: true
        - in: query
```

```
          name: weight
          description: String for weight
          schema:
            type: string
          required: true
        - in: query
          name: type
          description: String for case type
          schema:
            type: string
          required: true

      responses:
        '200':
          description: Success

 /addprod/cooler:
    post:
      operationId: R218
      summary: 'R218: Add Cooler Product'
      description: 'Sets Cooler features after setting initally prod features.
Access: ADM.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: type
          description: String for cooler type
          schema:
            type: string
          required: true

      responses:
        '200':
          description: Success

 /addprod/powersupply:
    post:
      operationId: R219
      summary: 'R219: Add PowerSupply Product'
      description: 'Sets CPU features after setting initally prod features.
Access: ADM.'

      tags:
        - 'M02: Products'

      parameters:
        - in: query
          name: wattage
          description: Int for wattage
          schema:
            type: integer
          required: true
        - in: query
          name: certification
          description: String for certification
          schema:
            type: string
          required: true
        - in: query
          name: type
          description: String for supply type
          schema:
            type: string
          required: true

      responses:
        '200':
          description: Success
#addproduct end

 /removeprod:
     get:
       operationId: R220
       summary: 'R220: Removes Given Product'
       description: 'Removes product given by ID. Access: ADM.'

       tags:
         - 'M02: Products'

       parameters:
         - in: query
           name: id
           description: Int for id
           schema:
             type: number
           required: true

       responses:
         '200':
           description: Success

 /products/{id}:
   get:
     operationId: R210
     summary: 'R210: Product Info'
     description: 'Provides info on specified product. Access: PUB'
     tags:
       - 'M02: Products'
     responses:
       '200':
         description: 'Ok. Show Prod Info'

 /addreview:
    post:
     operationId: R301
```

```
      summary: 'R301: Add Review to product'
      description: 'Adds review to specified product: Access: OWN'
      tags:
        - 'M03: Reviews and Wish list'

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                stars:
                  type: int
                text:
                  type: string
              required:
                   - stars
                   - text

      responses:
        '302':
          description: 'Redirect after processing the review.'
          headers:
            Location:
              schema:
                type: string
              examples:
                302Success:
                  description: 'Successful authentication. Redirect to prod.'
                  value: '/products/{id}'
                302Failure:
                  description: 'Failed authentication. Redirect to prod.'
                  value: '/products/{id}'

  /editreview:
     post:
      operationId: R302
      summary: 'R302: Edit Product Review'
      description: 'Edits review given to specified product: Access: OWN'
      tags:
        - 'M03: Reviews and Wish list'

      requestBody:
        required: true
        content:
          application/x-www-form-urlencoded:
            schema:
              type: object
              properties:
                stars:
                  type: int
                text:
                  type: string
              required:
                   - stars
                   - text

      responses:
        '302':
          description: 'Redirect after processing the review.'
          headers:
            Location:
              schema:
                type: string
              examples:
                302Success:
                  description: 'Successful authentication. Redirect to prod.'
                  value: '/products/{id}'
                302Failure:
                  description: 'Failed authentication. Redirect to prod.'
                  value: '/products/{id}'

  /removereview:
     post:
      operationId: R303
      summary: 'R303: Remove Review from product'
      description: 'Removes review from specified product: Access: OWN'
      tags:
        - 'M03: Reviews and Wish list'

      responses:
        '302':
          description: 'Redirect after processing the review.'
          headers:
            Location:
              schema:
                type: string
              examples:
                302Success:
                  description: 'Successful authentication. Redirect to prod.'
                  value: '/products/{id}'
                302Failure:
                  description: 'Failed authentication. Redirect to prod.'
                  value: '/products/{id}'

  /addtowishlist:
     post:
      operationId: R304
      summary: 'R304: Add Product to Wishlist'
      description: 'Adds Product to User Wishlist: Access: USR'
      tags:
        - 'M03: Reviews and Wish list'

      responses:
        '200':
          description: Success
  /removefromwishlist:
     post:
      operationId: R305
      summary: 'R305: Remove Product from Wishlist'
      description: 'Removes Product from User Wishlist: Access: OWN'
      tags:
        - 'M03: Reviews and Wish list'

      responses:
        '200':
          description: Success

  /viewwishlist:
     get:
      operationId: R306
      summary: 'R306: List products in wishlist'
      description: 'Lists Products from User Wishlist: Access: OWN'
      tags:
        - 'M03: Reviews and Wish list'

      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:

  /users/cart:
    get:
      operationId: R400
      summary: 'R400: Shows given users cart'
      description: 'Show cart. Access: OWN.'

      tags:
        - 'M04: Orders'

      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:

  /cart/add:
    post:
      operationId: R401
      summary: 'R401: Adds product by ID to cart'
      description: 'Adds given product to cart. Access: PUB.'

      tags:
        - 'M04: Orders'

      parameters:
        - in: query
          name: id
          description: Product ID
          schema:
            type: number
          required: true
        - in: query
          name: quantity
          description: Product quantity
          schema:
            type: integer
          required: true

      responses:
        '200':
          description: Success

  /cart/update:
    post:
      operationId: R402
      summary: 'R402: Updates quantity of a product in cart'
      description: 'Update product in cart. Access: OWN.'

      tags:
        - 'M04: Orders'

      parameters:
        - in: query
          name: id
          description: Product ID
          schema:
            type: number
          required: true
        - in: query
          name: quantity
          description: Product quantity
          schema:
            type: integer
          required: true

      responses:
        '200':
          description: Success

  /cart/remove:
    post:
      operationId: R403
```

```yaml
      summary: 'R403: Removes a product in cart'
      description: 'Remove product in cart. Access: OWN.'

      tags:
        - 'M04: Orders'

      parameters:
        - in: query
          name: id
          description: Product ID
          schema:
            type: number
          required: true

      responses:
        '200':
          description: Success

  /cart/checkout:
    post:
      operationId: R404
      summary: 'R404: Checkouts cart of Products'
      description: 'Checkout cart of products. Access: OWN.'

      tags:
        - 'M04: Orders'

      responses:
        '200':
          description: Success

  /api/usersearch: #admins could see blocked users, how?
    get:
      operationId: R501
      summary: 'R501: Search User accounts'
      description: 'Lists all users. Access: PUB.'

      tags:
        - 'M05: User Administration and Information Pages'

      parameters:
        - in: query
          name: name
          description: User name
          schema:
            type: string
          required: false
        - in: query
          name: email
          description: User email
          schema:
            type: integer
          required: false
      responses:
        '200':
          description: Success
          content:
            application/json:
              schema:
                type: array
                items:
                  type: object
                  properties:


  /blockusr:
    post:
      operationId: R502
      summary: 'R502: Block User'
      description: 'Blocks Specified User. Access: ADM'
      tags:
        - 'M05: User Administration and Information Pages'
      responses:
        '200':
          description: 'Ok. Block'
  /unblockusr:
    post:
      operationId: R503
      summary: 'R503: Unblock User'
      description: 'Unblocks Specified User. Access: ADM'
      tags:
        - 'M05: User Administration and Information Pages'
      responses:
        '200':
          description: 'Ok. Unblock'
  /viewhistory:
    post:
      operationId: R504
      summary: 'R504: View User Purchase History'
      description: 'Shows purchase history of specified user. Access: OWN, ADM'
      tags:
        - 'M05: User Administration and Information Pages'
      responses:
        '200':
          description: 'Ok. Show'

  /viewcontact:
    get:
      operationId: R505
      summary: 'R505: View Contact Page'
      description: 'View the Contact Page. Access: PUB'
      tags:
        - 'M05: User Administration and Information Pages'
      responses:
        '200':
          description: 'Ok. Show'
  /viewabout:
    get:
      operationId: R506
      summary: 'R506: View About Page'
      description: 'View the About Page. Access: PUB'
      tags:
        - 'M05: User Administration and Information Pages'
      responses:
        '200':
          description: 'Ok. Show'

  /viewfaq:
    get:
      operationId: R507
      summary: 'R507: View Faq Page'
      description: 'View the Faq Page. Access: PUB'
      tags:
        - 'M05: User Administration and Information Pages'
      responses:
        '200':
          description: 'Ok. Show'
```

A8: Vertical prototype

The Vertical Prototype includes the implementation of the features marked as necessary in the common and theme requirements documents. This artefact aims to validate the architecture presented. The implementation is based on the LBAW Framework and includes work on all layers of the architecture of the solution to implement: user interface, business logic and data access.

1. Implemented Features

1.1. Implemented User Stories

User Story	Name	Priority	Description
US01	Home	High	As a *User*, I want to access the Home page, so that I can be introduced to the website.
US02	FAQ	High	As a *User*, I want to access the FAQ page, so that I can look for an answer to a question I might have.
US03	Contacts	High	As a *User*, I want to access the Contacts Page, so that I can easily retrieve the website founders’ contacts.
US04	About	High	As a *User*, I want to access the About page, so that I can get to know what the website is focused on and how it was created.

User Story	Name	Priority	Description
US05	Search using the Navigation Menu	High	As a *User*, I want to search for a group of products using the navigation menu so that I can easily find what I'm looking for.
US06	Searching using the Search Bar	High	As a *User*, I want to search for products using the search bar, so that I can use keywords to find what I'm looking for more accurately.
US09	Access product page	High	As a *User*, I want to access a product page, so that I can get access to detailed information and specifications
US31	Profile	High	As an *Authenticated User*, I want to view and edit my profile, to keep track of my information.
US37	Sign-out	High	As an *Authenticated User*, I want to log out of my account, so that I can close it out.
US38	Check Purchase History	High	As an *Authenticated User*, I want to view the history of my previous purchase, so that I can keep track of my expenditures in the system.
US41	Sign-In	High	As a *Guest*, I want to login into my account, so that I can get authenticated user privilege.
US42	Sign-Up	High	As a *Guest*, I want to create an account, so that I'm able to authenticate into the system.

...

1.2. Implemented Web Resources

Module M01: Authentication and User's profiles

Web Resource Reference	URL
R101: Login Form	GET /login
R102: Login Action	POST /login
R103: Logout Action	GET /logout
R104: Register Form	GET /register
R105: Register Action	POST /register
R106: View user profile	GET /users
R107: Delete user profile	DELETE /users/
R108: Edit action	POST /users/edit/{id}

Module M02: Products

Web Resource Reference	URL
R203: Product Info	GET /products{id}

Module M03: Reviews and Wish lists

Web Resource Reference	URL
R304: Add product to wishlist	PUT /users/wishlist/{product_id}
R305: Remove product from wishlist	DELETE users/wishlist/{product_id}
R306: List products in wishlist	GET /users/wishlist/
R307: Empty wishlist	DELETE /users/wishlist/

Module M04: Orders and Carts

Web Resource Reference	URL
R400: Shows given users cart	GET /users/cart
R401: Empty given users cart	DELETE /users/cart
R402: Adds a product in cart	PUT /users/cart/{products_id}
R403: Removes a product in cart	DELETE /users/cart/{products_id}
R404: Increment quantity of a product in cart	POST /users/cart/{products_id}/increment
R405: Decrement quantity of a product in cart	POST /users/cart/{products_id}/decrement
R406: Checkout cart of products	POST /users/cart/checkout

Module M05: User Administration and Information Pages

Web Resource Reference	URL
R505: View Contact Page	GET /contacts
R506: View About Page	GET /about
R507: View Faq Page	GET /faq

2. Prototype

The prototype can be seen at lbaw2175.lbaw.fe.up.pt

Use the following credentials

- Admin
  - Email - up201907716
  - Password - 123456789
- Regular user
  - Email - vova10000@bukan.es

  - Password - firstUserPass

The code is available here

Revision history

Changes made to the first submission:

1. Item 1
2. ..

GROUP2175, 4/11/2022

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- Nuno Jesus, up201905477
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