BE Services	Request	Responses
Qr Scan	"/scan/{product_id}": { "get": { "tags": ["qrscan"], "summary": "Scan the meat and give more details", "parameters": [{ "name": "product_id", "in": "path", "description": "Id of the product to be scanned obtained by the scan", "required": true, "schema": { "type": integer } }], } },	"responses": { "200": { "description": "Successful scan the product", "content": { "application/json": { "schema": { "sref": "#/components/schemas/Product" } }, "400": { "description": "Invalid product id", "content": { "application/json": { "schema": { "sref": "#/components/schemas/Error" } }, "401": { "description": "User isn't authenticated", "content": { "application/json": { "schema": { "sref": "#/components/schemas/ErrorUnautohriz ed" } }, "404": { "description": "Product not found", "content": { "application/json": { "schema": { "sref": "#/components/schemas/ErrorNotFound" } }, },
News	"/news": { "get": { "tags": ["news"], "summary": "Retrieves a list of the news",	"responses": { "200": { "description": "List of news was retrieved successfully", "content": { "application/json": { "schema": {

```
"$ref": "#/components/schemas/News"
 }
},
                                         "401": {
                                          "description": "User isn't authenticated",
                                          "content": {
                                          "application/json": {
                                          "schema": {
                                          "$ref":
                                         "#/components/schemas/ErrorUnautohriz
                                         ed"
                                          },
                                         "404": {
                                          "description": "No news found",
                                          "content": {
                                          "application/json": {
                                          "schema": {
                                          "$ref":
                                         "#/components/schemas/ErrorNotFound"
                                          },
"/news/{news_id}": {
                                          "responses": {
                                          "200": {
 "get": {
 "tags": [
                                          "description": "Specified new was
                                         retrieved successfully",
   "news"
                                          "content": {
"summary": "Retrieve a specific
                                          "application/json": {
                                          "schema": {
"parameters": [
                                          "$ref": "#/components/schemas/New"
"name": "news id}",
"in": "path",
"description": "Id of the new to be
                                         "400": {
retrieved".
"required": true,
                                          "description": "Invalid news id",
                                          "content": {
"schema": {
                                          "application/json": {
"type": integer
                                          "schema": {
                                          "$ref": "#/components/schemas/Error"
  }],
                                          },
                                         "401": {
                                          "description": "User isn't authenticated",
                                          "content": {
                                          "application/json": {
                                          "schema": {
```

```
"$ref":
                                                               "#/components/schemas/ErrorUnautohriz
                                                               ed"
                                                               "404": {
                                                                "description": "No news found",
                                                                "content": {
                                                                "application/json": {
                                                                "schema": {
                                                                "$ref":
                                                               "#/components/schemas/ErrorNotFound"
                                                                }
                      "/login": {
                                                               "responses": {
Login
                        "post": {
                                                                 "200": {
                         "tags": [
                                                                  "description": "Login was successful,
                           "authentication"
                                                               token returned",
                                                                  "content": {
                         ],
                        "summary": "Add new user",
                                                                   "application/json": {
                        "parameters": [
                                                                    "schema": {
                                                                      "$ref": "#/components/schemas/
                          "name": "body",
                                                               AuthToken "
                          "in": "query",
                          "description": "User object to be
                                                                   }
                      added",
                          "required": true,
                          "style": "form",
                                                                 "400": {
                          "explode": true,
                                                                  "description": "Invalid request data for
                          "schema": {
                                                               login",
                                                                  "content": {
                          "$ref":
                      "#/components/schemas/User"
                                                                   "application/json": {
                                                                    "schema": {
                                                                      "$ref":
                         }],
                                                               "#/components/schemas/Error"
                        }
                      }
                                                                },
                                                                  "description": "Invalid credentials, user
                                                               is not authenticated",
                                                                  "content": {
                                                                   "application/json": {
                                                                    "schema": {
                                                                      "$ref":
                                                               "#/components/schemas/ErrorUnauthoriz
                                                               ed"
                                                                    }
```

```
"/signup": {
                                         "responses": {
                                             "200": {
 "post": {
  "tags": [
                                              "description": "User was
   "authentication"
                                         successfully registered",
                                              "content": {
  "summary": "Register a new user",
                                                "application/json": {
  "requestBody": {
                                                 "schema": {
    "description": "User object to be
                                                  "$ref": "#/components/schemas/
added",
                                         AuthToken"
   "required": true,
    "content": {
     "application/json": {
      "schema": {
       "$ref":
                                             "400": {
                                              "description": "Invalid user data",
"#/components/schemas/User"
                                              "content": {
                                               "application/json": {
    }
                                                 "schema": {
                                                  "$ref":
  },
                                         "#/components/schemas/Error"
                                             "409": {
                                              "description": "User already exists",
                                              "content": {
                                               "application/json": {
                                                 "schema": {
                                                  "$ref":
                                         "#/components/schemas/ErrorConflict"
                                           },
```

```
productCategories
                                                                "responses": {
                      "/product-categories": {
                      "get": {
                                                                    "200": {
                         "tags": [
                                                                     "description": "Product categories
                          "Product Categories"
                                                                retrieved successfully",
                                                                     "content": {
                         "summary": "Retrieve product
                                                                      "application/json": {
                      categories based on location",
                                                                        "schema": {
                         "parameters": [
                                                                         "$ref":
                                                                "#/components/schemas/ProductCategori
                           "name": "location",
                                                                es"
                           "in": "query",
                           "description": "Location to filter
                      product categories",
                           "required": true,
                           "schema": {
                                                                    "400": {
                             "type": "string"
                                                                     "description": "Invalid location
                                                                parameter",
                                                                     "content": {
                        ],
                                                                       "application/json": {
                                                                        "schema": {
                      }}
                                                                         "$ref":
                                                                "#/components/schemas/Error"
                                                                    "401": {
                                                                     "description": "User isn't
                                                                authenticated",
                                                                     "content": {
                                                                      "application/json": {
                                                                        "schema": {
                                                                         "$ref":
                                                                "#/components/schemas/ErrorUnauthoriz
                                                                ed"
                                                                    "404": {
                                                                     "description": "No product
                                                                categories found for the specified
                                                                location",
                                                                     "content": {
                                                                      "application/json": {
                                                                        "schema": {
                                                                         "$ref":
                                                                "#/components/schemas/ErrorNotFound"
                                                                        }
                                                                      }
```

```
}
                                             },
"/product-categories/{category_id}": {
                                         "responses": {
 "get": {
                                             "200": {
  "tags": [
                                              "description": "Product category
   "Product Categories"
                                         retrieved successfully",
                                              "content": {
  "summary": "Retrieve a product
                                                "application/json": {
category by ID",
                                                 "schema": {
  "parameters": [
                                                  "$ref":
                                         "#/components/schemas/ProductCategor
     "name": "category_id",
                                         ٧"
     "in": "path",
     "description": "ID of the product
category to retrieve",
                                              }
     "required": true,
     "schema": {
                                             "400": {
      "type": "string"
                                              "description": "Invalid category ID",
                                              "content": {
                                               "application/json": {
  ],
                                                 "schema": {
                                                  "$ref":
                                         "#/components/schemas/Error"
                                             "401": {
                                              "description": "User isn't
                                         authenticated",
                                              "content": {
                                               "application/json": {
                                                 "schema": {
                                                  "$ref":
                                         "#/components/schemas/ErrorUnauthoriz
                                         ed"
                                             "404": {
                                              "description": "Product category not
                                         found",
                                              "content": {
                                                "application/json": {
                                                 "schema": {
```

```
"$ref":
                                                                "#/components/schemas/ErrorNotFound"
                                                                   },
                                                               }
Product
                      "/product-
                                                                "responses": {
                      categories/product/{product_id}": {
                                                                   "200": {
                                                                     "description": "Product retrieved
                        "get": {
                         "tags": [
                                                               successfully",
                          "Product Categories"
                                                                     "content": {
                                                                      "application/json": {
                         "summary": "Retrieve product
                                                                       "schema": {
                                                                         "$ref":
                      category by product ID",
                         "parameters": [
                                                               "#/components/schemas/Product"
                           "name": "product_id",
                           "in": "path",
                           "description": "ID of the product
                      to retrieve the category for",
                                                                    "400": {
                                                                     "description": "Invalid product ID",
                           "required": true,
                           "schema": {
                                                                     "content": {
                            "type": "string"
                                                                      "application/json": {
                                                                       "schema": {
                                                                        "$ref":
                          }
                                                               "#/components/schemas/Error"
                        ],
                                                                   "401": {
                                                                     "description": "User isn't
                                                               authenticated".
                                                                     "content": {
                                                                      "application/json": {
                                                                       "schema": {
                                                                         "$ref":
                                                               "#/components/schemas/ErrorUnauthoriz
                                                               ed"
                                                                     "description": "Product id not found",
```

```
"content": {
                                                                        "application/json": {
                                                                         "schema": {
                                                                          "$ref":
                                                                 "#/components/schemas/ErrorNotFound"
                                                                     },
                       "/user/{userId}": {
                                                                 "responses": {
User
                                                                     <sup>"</sup>200": {
                        "get": {
                                                                      "description": "User retrieved
                         "tags": [
                          "User"
                                                                 successfully",
                                                                      "content": {
                         "summary": "Retrieve user by ID",
                                                                        "application/json": {
                         "parameters": [
                                                                         "schema": {
                                                                          "$ref":
                            "name": "userId",
                                                                 "#/components/schemas/User"
                            "in": "path",
                            "description": "ID of the user to
                       retrieve",
                            "required": true,
                            "schema": {
                                                                     "400": {
                             "type": "string"
                                                                      "description": "Invalid user ID",
                                                                      "content": {
                                                                       "application/json": {
                                                                         "schema": {
                         ],
                                                                          "$ref":
                                                                 "#/components/schemas/Error"
                                                                     "401": {
                                                                      "description": "User isn't
                                                                 authenticated",
                                                                      "content": {
                                                                        "application/json": {
                                                                         "schema": {
                                                                          "$ref":
                                                                 "#/components/schemas/ErrorUnauthoriz
                                                                 ed"
                                                                      "description": "User not found",
                                                                      "content": {
```

```
"application/json": {
                                                                        "schema": {
                                                                         "$ref":
                                                                "#/components/schemas/ErrorNotFound"
                                                                    },
Favorites
                      "/favorites": {
                                                                "responses": {
                                                                    "200": {
                        "get": {
                         "tags": [
                                                                     "description": "Favorites retrieved
                          "Favorites"
                                                                successfully",
                                                                     "content": {
                         "summary": "Retrieve user's
                                                                       "application/json": {
                      favorite items",
                                                                        "schema": {
                         "security": [
                                                                         "type": "array",
                                                                         "items": {
                           "BearerAuth": []
                                                                          "$ref":
                                                                "#/components/schemas/Product"
                        ],
                                                                    "401": {
                                                                     "description": "User isn't
                                                                authenticated".
                                                                     "content": {
                                                                      "application/json": {
                                                                       "schema": {
                                                                         "$ref":
                                                                "#/components/schemas/ErrorUnauthoriz
                                                                ed"
                                                                }
                      "/favorites/{product_id}": {
                                                                 "responses": {
                       "post": {
                                                                    "200": {
                         "tags": [
                                                                     "description": "Product added to
                          "Favorites"
                                                                favorites successfully",
                                                                     "content": {
                         "summary": "Add a product to
                                                                       "application/json": {
                      user's favorites",
                                                                        "schema": {
                         "security": [
                                                                         "$ref":
                                                                "#/components/schemas/SuccessMessa
                           "BearerAuth": []
                                                                ge"
```

```
"parameters": [
                                             "400": {
     "name": "product_id",
                                               "description": "Invalid request data",
     "in": "path",
     "description": "ID of the product
                                               "content": {
to add to favorites",
                                                "application/json": {
     "required": true,
                                                 "schema": {
     "schema": {
                                                  "$ref":
      "type": "string"
                                         "#/components/schemas/Error"
   }
  ],
                                             "401": {
                                              "description": "User isn't
                                         authenticated",
                                              "content": {
                                                "application/json": {
                                                 "schema": {
                                                  "$ref":
                                         "#/components/schemas/ErrorUnauthoriz
                                         ed"
                                             "404": {
                                              "description": "Product not found",
                                               "content": {
                                                "application/json": {
                                                 "schema": {
                                                  "$ref":
                                         "#/components/schemas/ErrorNotFound"
                                             "409": {
                                              "description": "Product already in
                                         favorites",
                                              "content": {
                                                "application/json": {
                                                 "schema": {
                                                  "$ref":
                                         "#/components/schemas/ErrorConflict"
                                               }
                                              }
```

```
},
                                         }
"/favorites/{product_id}": {
                                         "responses": {
                                             "200": {
 "delete": {
                                              "description": "Product removed
  "tags": [
    "Favorites"
                                         from favorites successfully",
                                              "content": {
  "summary": "Remove a product
                                                "application/json": {
from user's favorites",
                                                 "schema": {
                                                  "$ref":
  "security": [
                                         "#/components/schemas/SuccessMessa
     "BearerAuth": []
                                         ge"
   "parameters": [
                                              }
     "name": "product id",
                                             "400": {
                                              "description": "Invalid request data",
     "in": "path",
     "description": "ID of the product
                                              "content": {
to remove from favorites",
                                                "application/json": {
     "required": true,
                                                 "schema": {
                                                  "$ref":
     "schema": {
      "type": "string"
                                         "#/components/schemas/Errort"
  ],
                                             "401": {
                                              "description": "User isn't
                                         authenticated",
                                              "content": {
                                                "application/json": {
                                                 "schema": {
                                                  "$ref":
                                         "#/components/schemas/ErrorUnauthoriz
                                         ed"
                                             "404": {
                                              "description": "Product not found in
                                         favorites",
                                              "content": {
                                                "application/json": {
                                                 "schema": {
                                                  "$ref":
                                         "#/components/schemas/ErrorNotFound"
```

		}
		},
Feedback	"/product- categories/product/{product_id}/feedb ack": { "get": { "tags": ["Product Feedback"], "summary": "Retrieve feedback for a specific product", "parameters": [{ "name": "product_id", "in": "path", "description": "ID of the product to retrieve feedback for", "required": true, "schema": { "type": "string" } }], }],	"responses": { "200": { "description": "Feedback retrieved successfully", "content": { "application/json": { "schema": { "type": "array", "items": { "\$ref": "#/components/schemas/Feedback" } } } } *Gontent": { "application/json": { "schema": { "sref": "#/components/schemas/Errort" } } } *J *J
	"/product- categories/product/{product_id}/feedb ack": { "post": { "tags": ["responses": { "201": { "description": "Feedback added successfully", "content": {

```
"Product Feedback"
                                                                     "application/json": {
                                                                       "schema": {
                        "summary": "Add feedback for a
                                                                        "$ref":
                                                               "#/components/schemas/Feedback"
                      specific product",
                        "parameters": [
                           "name": "product id",
                           "in": "path",
                           "description": "ID of the product
                                                                   "400": {
                      to add feedback for",
                                                                    "description": "Invalid request data",
                           "required": true,
                                                                    "content": {
                           "schema": {
                                                                     "application/json": {
                            "type": "string"
                                                                       "schema": {
                                                                        "$ref":
                                                               "#/components/schemas/Errort"
                        "requestBody": {
                          "required": true,
                          "content": {
                           "application/json": {
                                                                   "404": {
                                                                    "description": "Product not found",
                            "schema": {
                             "$ref":
                                                                    "content": {
                      "#/components/schemas/Feedback"
                                                                     "application/json": {
                                                                       "schema": {
                                                                        "$ref":
                          }
                         }
                                                               "#/components/schemas/ErrorNotFound"
Comuns a todas as
                                                                "500": {
                                                                  "description": "Internal Server Error",
resources
                                                                  "content": {
                                                                   "application/json": {
                                                                    "schema": {
                                                                     "$ref":
                                                               "#/components/schemas/Error"
                                                                "503": {
                                                                  "description": "Service unavailable",
                                                                  "content": {
                                                                   "application/json": {
                                                                    "schema": {
                                                                     "$ref":
                                                               "#/components/schemas/Error"
```

```
"Error": {
    "type": "object",
    "properties": {
        "code": {
        "type": "integer",
        "description": "Error code"
        },
        "message": {
        "type": "string",
        "description": "Error message"
        }
    }
}
```

A Secção seguinte é referente a todos os requests.

```
"components": {
 "schemas": {
   "New": {
     "type": "object",
     "required": [
       "titulo",
       "data",
       "descricao"
     "properties": {
       "titulo": {
        "type": "string",
        "description": "Title of the news article"
      },
      "data": {
        "type": "string",
        "description": "Date of the news article",
        "format": "date-time"
      },
"descricao": {
        "type": "string",
        "description": "Description of the news article"
    },
"News": {
     "type": "object",
```

```
"properties": {
       "newsList": {
        "type": "array",
        "items": {
         "type": "object",
         "required": [
          "titulo",
          "data",
          "descricao"
         "properties": {
          "titulo": {
            "type": "string",
            "description": "Title of the news article"
           "data": {
            "type": "string",
            "description": "Date of the news article",
            "format": "date-time"
           "descricao": {
            "type": "string",
            "description": "Description of the news article"
"User": {
    "type": "object",
    "properties": {
     "username": {
      "type": "string",
      "description": "Username of the user"
     "password": {
      "type": "string",
      "description": "Password of the user"
     "email": {
      "type": "string",
      "description": "Email address of the user"
    "required": ["username", "password", "email"]
  },
"AuthToken": {
    "type": "object",
    "properties": {
     "access_token": {
      "type": "string",
      "description": "JWT access token"
```

```
"refresh_token": {
      "type": "string",
"description": "JWT refresh token"
  },
"Product":
      { "required":
         [ "product ID",
           "produtor",
          "origem",
           " sexo ",
           "idade",
           "raça",
           "descricao"
     "type": "object",
      "properties": {
         "product ID": {
         "type": "integer",
         "description": "Unique identifier for the
                                                            product",
         "format": "int64" },
        "produtor":{
         "type": "string",
         "description": "Meat Producer" },
        "origem": {
        "type": "string",
        "description": "Meat origin" },
        "sexo":{
          "type": "string",
        "description ": "animal information sex" }
        "idade": {
         "type": "integer",
         "description ": "animal age",
         "format": "int64"
         "raça": {
           "type": "string",
"description ": "animal race",
         "descricao": {
           "type": "string",
           "description ": "gives more details
                                                       about the product",
        }
"ProductCategories": {
    "type": "object",
    "properties": {
```

```
"categories": {
      "type": "array",
      "items": {
       "type": "object",
       "properties": {
         "id": {
          "type": "string",
          "description": "Category id"
         "name": {
          "type": "string",
          "description": "Category name"
         "description": {
          "type": "string",
          "description": "Category description"
         "image": {
          "type": "binary",
          "description": "Category image"
"ProductCategory": {
    "type": "object",
    "properties": {
     "id": {
      "type": "string",
      "description": "Category ID"
     "name": {
      "type": "string",
      "description": "Category name"
     "description": {
      "type": "string",
      "description": "Category description"
       "image": {
          "type": "binary",
          "description": "Category image"
   }
"SuccessMessage": {
   "type": "object",
   "properties": {
     "message": {
      "type": "string",
```

```
"description": "Success message"
   }
  },
"Feedback": {
   "type": "object",
   "properties": {
     "rating": {
      "type": "integer",
      "description": "Rating given by the user (1-5)"
     "comment": {
      "type": "string",
      "description": "Comment provided by the user"
     "userId": {
      "type": "string",
      "description": "ID of the user who provided the feedback"
   }
 "ErrorNotFound": {
   "type": "object",
   "properties": {
     "code": {
      "type": "integer",
      "description": "Error code"
     "message": {
      "type": "string",
      "description": "Not found error message"
    }
   }
  },
  "Error": {
   "type": "object",
   "properties": {
     "code": {
      "type": "integer",
      "description": "Error code"
     "message": {
      "type": "string",
      "description": "Error message"
   }
  "ErrorUnauthorized": {
   "type": "object",
```

```
"properties": {
    "code": {
        "type": "integer",
        "description": "Error code"
    },
    "message": {
        "type": "string",
        "description": "Unauthorized access message"
    }
    }
},
"ErrorForbidden": {
    "type": "object",
    "properties": {
        "code": {
        "type": "integer",
        "description": "Error code"
    },
    "message": {
        "type": "string",
        "description": "Forbidden access message"
    }
},
```