DEPARTMENT OF COMPUTER SCIENCE

Software Engineering

Advanced Web Development

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URI’s Documentation

- Create Customer

HTTP Method	POST
URI:	http://localhost/barroco/customers
Description	Creates a new customer
Request Parameters	

Json Response	{
	"_id": "string",
	"phone": "string",
	"billingAddress": "string",
	"__v": 0
	}

Status	201 Created
Json File	

- Delete Customer

HTTP Method	DELETE
URI:	http://localhost/barroco/customers/{id}
Description	Deletes a customer
Request Parameters	id (in the path): client ID
Json Response	{"message":"Customer deleted successfully"}
Status	200 (OK)
Json File	

- Update Customer

HTTP Method	PUT
URI:	http://localhost/barroco/customers/{id}
Description	Updates an existing customer
Request Parameters	{"billingAdress":"Updated St","phone":"0988888888"}
Json Response	{"message":"Customer updated successfully"}

Status	200 (OK)
Json File	

- Get Customer

HTTP Method	GET
URI:	http://localhost/barroco/customers/{id}
Description	Retrieves a customer using the provided customer ID.
Request Parameters	id – The ID of the customer

Json Response	{
	  "_id": "string",
	  "phone": "string",
	  "billingAddress": "string",
	  "__v": 0
	}
	or
	{
	  "message": "Customer not found"
	}

Status	200 (OK)
Json File	

- Get Customers

HTTP Method	GET
URI:	http://localhost/barroco/customers
Description	Retrieves all customers.
Request Parameters	

Json Response	[
	  {
	    "_id": "string",
	    "phone": "string",
	    "billingAddress": "string",
	    "__v": 0
	  }
	  // ...more costumers
	]

Status	200 (OK)

Json File	

- Create Order

HTTP Method	POST
URI:	http://localhost/barroco/orders
Description	Create a new order
Request Parameters	{"customer":"123","date":"2024-06-01","total":100.00,"status":"PENDING"}
Json Response	{"message":"Order created successfully"}
Status	201 (Created)
Json File	

- Delete Order

HTTP Method	DELETE
URI:	http://localhost/barroco/orders/{id}
Description	Delete an order
Request Parameters	idOrder
Json Response	{"message":"Order deleted successfully"}
Status	200 (OK)
Json File	

- Update Order

HTTP Method	PUT
URI:	http://localhost/barroco/orders/{id}
Description	Update an existing order
Request Parameters	{"status":"DELIVERED"}
Json Response	{"message":"Order updated successfully"}
Status	200 (OK)
Json File	

- Get Order

HTTP Method	GET
URI:	http://localhost/barroco/orders/{id}
Description	Get details of a specific order
Request Parameters	idOrder – Order ID
Json Response	{"idOrder":"123","date":"2024-06-01","status":"SENT","total":120.50}
Status	200 (OK)
Json File	

- Create CartItem

HTTP Method	POST
URI:	http://localhost/barroco/orders
Description	Add a product to the cart
Request Parameters	{"product":"P123","quantity":1,"subtotal":25.00}
Json Response	{"message":"Item added to cart"}
Status	201 (Created)
Json File	

- Delete CartItem

HTTP Method	DELETE
URI:	http://localhost/barroco/cartitems/{id}
Description	Remove an item from the cart
Request Parameters	idItemCar
Json Response	{"message":"Item removed from cart"}
Status	200 (OK)

Json File	

- Update CartItem

HTTP Method	PUT
URI:	http://localhost/barroco/cartitems/{id}
Description	Update the quantity or subtotal of a cart item
Request Parameters	{"quantity":3,"subtotal":75.00}
Json Response	{"message":"Item updated"}
Status	200 (OK)
Json File	

- Get CartItem

HTTP Method	GET
URI:	http://localhost/barroco/cartitems/{id}
Description	Get item details from the cart
Request Parameters	idItemCar
Json Response	{"idItemCar":"IT001","product":"P123","quantity":2,"subtotal":50.00}
Status	200 (OK)
Json File	

- Create ShoppingCart

HTTP Method	POST
URI:	http://localhost/barroco/shoppingCart
Description	Create a new shopping cart
Request Parameters	{"customer":"123","total":0.00}
Json Response	{"message":"Shopping cart created successfully"}
Status	201 (Created)

Json File	

- Delete ShoppingCart

HTTP Method	DELETE
URI:	http://localhost/barroco/shoppingCart/{id}
Description	Delete a shopping cart
Request Parameters	idShoppingCar
Json Response	{"message":"Cart deleted successfully"}
Status	200 (OK)
Json File	

- Update ShoppingCart

HTTP Method	PUT
URI:	http://localhost/barroco/shoppingCart/{id}
Description	Update the shopping cart total or customer
Request Parameters	{"total":250.00}
Json Response	{"message":"Cart updated successfully"}
Status	200 (OK)
Json File	

- Get ShoppingCart

HTTP Method	GET
URI:	http://localhost/barroco/shoppingCart/{id}
Description	Retrieve a shopping cart
Request Parameters	idShoppingCar
Json Response	{"idShoppingCar":"SC123","customer":"123","total":200.00}
Status	200 (OK)
Json File	

- Create Administrator

HTTP Method	POST
URI:	http://localhost/barroco/administrators
Description	Creates a new administrator user.

Request Parameters	{
	"firstName": "John",
	"lastName": "Doe",
	"email": "jdoe@email.com",
	"password": "securePass123",
	"role": "admin"
	}

Json Response	{
	"message": "Administrator created successfully"
	}

Status	201 Created
Json File	

- Delete Administrator

HTTP Method	DELETE
URI:	http://localhost/barroco/administrators/{id}
Description	Deletes an administrator from the system.
Request Parameters	id – ID of the administrator.

Json Response	{
	"message": "Administrator deleted successfully"
	}

Status	200 OK
Json File	

- Update Administrator

HTTP Method	PUT
URI:	http://localhost/barroco/administrators/{id}
Description	Updates administrator profile information.

Request Parameters	{
	  "firstName": "John",
	  "lastName": "Doe",
	  "email": "jdoe@email.com",
	}

Json Response	{
	  "message": "Administrator updated successfully"
	}

Status	200 OK
Json File	

- Get Administrator

HTTP Method	GET
URI:	http://localhost/barroco/administrators/{id}
Description	Retrieves details of a specific administrator using their ID.
Request Parameters	id – ID of the administrator.

Json Response	{
	  "idEmployee": "A001",
	  "firstName": "Laura",
	  "lastName": "Cruz",
	  "email": "laura@example.com",
	  "role": "admin"
	}

Status	200 OK
Json File	

- Create Employees

HTTP Method	POST
URI:	http://localhost/barroco/employees
Description	Register a new employee (e.g. warehouse or sales staff)

Request Parameters	{
	  "firstName": "John",
	  "lastName": "Doe",
	  "email": "jdoe@email.com",
	  "password": "securepass",

	"role": "stock" }
Json Response	{ "message": "Employee created successfully" }
Status	201 Created
Json File	

- Delete Employees

HTTP Method	DELETE
URI:	http://localhost/barroco/employees/{id}
Description	Remove an employee from the system
Request Parameters	id – The ID of the Employee
Json Response	{ "message": "Employee deleted successfully" }
Status	200 OK
Json File	

- Update Employees

HTTP Method	PUT
URI:	http://localhost/barroco/employees/{id}
Description	Modify employee details

Request Parameters	{
	"role": "sales"
	}

Json Response	{ "message": "Employee updated successfully" }
Status	200 OK
Json File	

- Get Employees

HTTP Method	GET
URI:	http://localhost/barroco/employees/{id}
Description	View an employee’s profile

Request Parameters	idEmployee

Json Response	{
	  "idEmployee": "EM001",
	  "firstName": "John",
	  "lastName": "Doe",
	  "email": "jdoe@email.com",
	  "role": "stock"
	}

Status	200 OK
Json File	

- Create Products

HTTP Method	POST
URI:	http://localhost/barroco/products
Description	Create a new ceramic product (e.g. mug, plate, vase)

Request Parameters	{
	  "name": "Handmade Mug",
	  "description": "Blue ceramic mug with floral pattern",
	  "price": 14.99,
	  "stock": 50,
	  "category": "Mugs",
	  "customizationAvailable": true
	}

Json Response	{ "message": "Product created successfully" }
Status	201 Created
Json File	

- Delete Products

HTTP Method	DELETE
URI:	http://localhost/barroco/products/{id}
Description	Remove a product from the catalog
Request Parameters	idProduct
Json Response	{ "message": "Product deleted successfully" }
Status	200 OK

Json File	

- Update Products

HTTP Method	PUT
URI:	http://localhost/barroco/products/{id}
Description	Update product information (e.g. price or stock)

Request Parameters	{
	"price": 16.99,
	"stock": 70
	}

Json Response	{ "message": "Product updated successfully" }
Status	200 OK
Json File	

- Get Products

HTTP Method	GET
URI:	http://localhost/barroco/products/{id}
Description	Retrieve details of a specific product
Request Parameters	idProduct

Json Response	{
	"idProduct": "P001",
	"name": "Handmade Mug",
	"description": "Blue ceramic mug with floral pattern",
	"price": 14.99,
	"stock": 50,
	"category": "Mugs",
	"customizationAvailable": true
	}

Status	200 OK
Json File	

- Create Payments

HTTP Method	POST

URI:	http://localhost/barroco/payments
Description	Create a new payment entry for an order.

Request Parameters	{
	"idOrder": 2,
	"idCustomer": 6,
	"amount": 77.25,
	"paymentMethod": "Tarjeta",
	"status": "Completado"
	}

Json Response	{
	"message": "Payment created successfully",
	"idPayment": 5
	}

Status	201 Created
Json File	

- Delete Payments

HTTP Method	DELETE
URI:	http://localhost/barroco/payments/{idPayment}
Description	Remove a payment record by ID.

Request Parameters	{
	"id": 7
	}

Json Response	{
	"message": "Payment deleted successfully"
	}

Status	200 (OK)
Json File	

- Update Payments

HTTP Method	PUT

URI:	http://localhost/barroco/payments/{idPayment}
Description	Update the status or other information of a payment.

Request Parameters	{
	"status": "Confirmado"
	}

Json Response	{
	"message": "Payment updated successfully"
	}

Status	200 (OK)
Json File	

- Get Payments

HTTP Method	GET
URI:	http://localhost/barroco/payments
Description	Get list of payments.

Request Parameters	[
	{
	"idPayment": 1,
	"amount": 45.99,
	"status": "Confirmado"
	}
	]

Json Response	[
	{
	"idPayment": 1,
	"idOrder": 1,
	"amount": 56.50,
	"method": "Transferencia",
	"status": "Confirmado"
	}
	]

Status	200 (OK)
Json File	

- Create ProductCategory

HTTP Method	POST
URI:	http://localhost/barroco/categories
Description	Creates a new product category.

Request Parameters	{
	"name": "Jars",
	"description": "Handmade ceramic jars"
	}

Json Response	{
	"message": "Category created successfully"
	}

Status	201 (Created)
Json File	

- Delete ProductCategory

HTTP Method	DELETE
URI:	http://localhost/barroco/categories/{idCategory}
Description	Deletes a product category.
Request Parameters	None

Json Response	{
	"message": "Category deleted successfully"
	}

Status	200 (OK)
Json File	

- Update ProductCategory

HTTP Method	PUT
URI:	http://localhost/barroco/categories/{idCategory}

Description	Updates category details.

Request Parameters	{
	"name": "Updated Name",
	"description": "Updated description"
	}

Json Response	{
	"message": "Category updated successfully"
	}

Status	200 (OK)
Json File	

- Get ProductCategory

HTTP Method	GET
URI:	http://localhost/barroco/categories
Description	Retrieves all product categories.
Request Parameters	None

Json Response	[
	{
	"idCategory": 1,
	"name": "Jars",
	"description": "Ceramic jars"
	}
	]

Status	200 (OK)
Json File	

- Create Invoice

HTTP Method	POST
URI:	http://localhost/barroco/invoices
Description	Generate an invoice for a customer’s order

Request Parameters	{
	  "order": "ORD456",
	  "issueDate": "2025-06-22",
	  "totalAmount": 85.00,
	  "tax": 8.50,
	  "discount": 5.00
	}

Json Response	{ "message": "Invoice generated successfully" }
Status	201 Created
Json File	

- Delete Invoice

HTTP Method	DELETE
URI:	http://localhost/barroco/invoices/{idInvoices}
Description	Delete a shopping cart

Request Parameters	{
	“idShoppingCar” : “”
	}

Json Response	{"message":"Cart deleted successfully"}
Status	200 (OK)
Json File	

- Update Invoice

HTTP Method	PUT
URI:	http://localhost/barroco/invoices/{idInvoices}
Description	Update the shopping cart total or customer
Request Parameters	{"total":250.00}
Json Response	{"message":"Cart updated successfully"}
Status	200 (OK)
Json File	

- Get Invoice

HTTP Method	GET
URI:	http://localhost/barroco/invoices/{idInvoices}
Description	View a specific invoice
Request Parameters	idInvoice

Json Response	{
	  "idInvoice": "INV001",
	  "order": "ORD456",
	  "issueDate": "2025-06-22",
	  "totalAmount": 85.00,
	  "tax": 8.50,
	  "discount": 5.00
	}

Status	200 OK
Json File	

URI's Business rule

- Apply a discount an specific

HTTP Method	POST
URI:	http://localhost/barroco/carts/{cartId}/items/{itemId}/apply-discount
Description	Apply a specific discount to the cart item
Request Parameters	cartId, itemId, discountCode (en body o query)
Json Response	{ "success": true, "item": { "id": "...", "discountApplied": true }}
Status	200 OK (éxito), 400 (parámetro inválido), 404 (no encontrado)
Json File	

- Check shipping cost

HTTP Method	GET
URI:	http://localhos/barroco/orders/{orderId}/shipping-rate
Description	Check shipping costs via UPS or FedEx

Request Parameters	orderId en la URL
Json Response	{ "shippingRate": 4.99, "carrier": "UPS", "deliveryTime": "2 days" }
Status	200 OK, 404 Not Found
Json File	

- Send Invoice by Email

HTTP Method	POST
URI:	http://localhost/barroco/invoices/{id}/send-email
Description	Send an invoice to the customer's email address
Request Parameters	email – The email of the customer
Json Response	{ "message": "Invoice sent by email successfully" }
Status	201 Created
Json File	

- Total sales

HTTP Method	GET
URI:	http://localhost/barroco/stats/total-sales
Description	Retrieve the total sales amount from all invoices.
Request Parameters	None
Json Response	{ "totalSales": 5432.50 }
Status	200 OK
Json File	

- Best-selling products

HTTP Method	GET
URI:	http://localhost/barroco/stats/most-sold-products

Description	Retrieve the top 5 most sold products by quantity.
Request Parameters	None
Json Response	{ "topProducts": [{ productId, name, quantity }, ...] }
Status	200 OK
Json File	

- Customers with the most spending

HTTP Method	GET
URI:	http://localhost/barroco/stats/top-customers
Description	Retrieve top customers ranked by total spent.
Request Parameters	none
Json Response	{ "topCustomers": [{ customerId, totalSpent }, ...] }
Status	200 OK
Json File	

- Sales by category

HTTP Method	GET
URI:	http://localhost/barroco/stats/category-sales
Description	Show total sold by product category.
Request Parameters	none
Json Response	{ "categorySales": [{ category, total }, ...] }
Status	200 OK
Json File	

- Monthly income

HTTP Method	GET

URI:	http://localhost/barroco/stats/monthly-income
Description	Return grouped income by month.
Request Parameters	year (opcional, e.g., 2024)
Json Response	{ "monthlyIncome": [{ month: "2024-05", total: 1234.56 }, ...] }
Status	200 OK
Json File	

- Average payments

HTTP Method	GET
URI:	http://localhost/barroco/payment/average-ticket
Description	Return average payment amount.
Request Parameters	None
Json Response	{ "average": 64.25 }
Status	200 OK
Json File	

- Average invoice discounts

HTTP Method	GET
URI:	http://localhost/barroco/invoice/discount-average
Description	Return average discount across all invoices.
Request Parameters	None
Json Response	{ "averageDiscount": 12.15 }
Status	200 OK
Json File	

- Total taxes collected

HTTP Method	GET
URI:	http://localhost/barroco/invoice/tax-collected
Description	Return total tax collected across all invoices.
Request Parameters	None
Json Response	{ "totalTax": 934.00 }
Status	200 OK
Json File	

- Cart subtotal

HTTP Method	GET
URI:	http://localhost/barroco/cart/{cartId}/subtotal |
Description	Return subtotal of a cart.
Request Parameters	cartId (in the URL)
Json Response	{ "subtotal": 104.00 }
Status	200 OK, 404 Not Found
Json File	

- Number of products in an order

HTTP Method	GET
URI:	http://localhost/barroco/order/{orderId}/product-count
Description	Count total products in an order.
Request Parameters	{ "count": 6 }
Json Response	orderId (en la URL)
Status	200 OK, 404 Not Found
Json File	

- Average order value

HTTP Method	GET
URI:	http://localhost/barroco/order/average-value
Description	Return average order value.
Request Parameters	None
Json Response	{ "averageOrder": 85.50 }
Status	200 OK
Json File	

- Customer's last purchase

HTTP Method	GET
URI:	http://localhost/barroco/customer/{id}/last-purchase
Description	Return latest order made by customer.
Request Parameters	id (en la URL del cliente)
Json Response	{ "orderId": "...", "date": "2024-06-10" }
Status	200 OK, 404 Not Found
Json File	

- Total spent per customer

HTTP Method	GET
URI:	http://localhost/barroco/customer/{id}/total-spent
Description	Return total amount spent by a customer.
Request Parameters	id (in the client URL)
Json Response	{ "totalSpent": 356.80 }
Status	200 OK, 404 Not Found
Json File	

- Customer Loyalty Score

HTTP Method	GET
URI:	http://localhost/barroco/customer/{id}/loyalty-score
Description	Calculate loyalty score based on orders.
Request Parameters	id (in the client URL)
Json Response	{ "score": 89 }
Status	200 OK, 404 Not Found
Json File	

- Stock status of a product

HTTP Method	GET
URI:	http://localhost/barroco/product/{id}/stock-status
Description	Return stock status (OK, low, out).
Request Parameters	id (in the product URL)
Json Response	{ "status": "LOW" }
Status	200 OK, 404 Not Found
Json File	

- Products with low stock

HTTP Method	GET
URI:	http://localhost/barroco/product/low-stock
Description	Return all products under stock threshold.
Request Parameters	threshold (optional, default: 5)
Json Response	[{ "productId": "...", "stock": 3 }, ...]
Status	200 OK
Json File	

- Product sales history

HTTP Method	GET
URI:	http://localhost/barroco/product/{id}/sales-history
Description	Return sales data grouped by month.
Request Parameters	id (in the product URL) from, to (optional dates for the range)
Json Response	[{ month: "2024-05", sold: 12 }, ...]
Status	200 OK, 404 Not Found
Json File	

- Status of an order

HTTP Method	GET
URI:	http://localhost/barroco/order/{id}/status-history
Description	Return list of status changes on an order.
Request Parameters	id (in the product URL)
Json Response	[{ status: "Enviado", date: "2024-06-15" }, ...]
Status	200 OK, 404 Not Found
Json File	

- Daily summary

HTTP Method	GET
URI:	http://localhost/barroco/reports/daily-summary?date=YYYY-MM-DD
Description	Return daily report: orders, sales, products, payments.
Request Parameters	date
Json Response	{ "orders": 4, "sales": 435.00, "productsSold": 12, ... }
Status	200 OK
Json File	