

# ADD - Iteration 3

## Step 1: Considered Inputs

Driver type	Description
Concerns	CRN5: Achieving the goal for the quality standards in a short amount of time
Quality attributes	QA4 : The application must be suitable for future modification
	QA5 : The system must achieve at least 70% of the level calculated for the code quality standards, through the Sonargraph-Explorer

## Step 2: Iteration Goal

- In this third iteration the goal is to re-evaluate the structure to confirm that supports all the primary functionalities;
- Implement all the primary functionalities;
- Integrate the Sonargraph-Explorer;
- Guarantee that the code standards are at least 70%.

## Step 3: Elements to decompose/refine

- Decide how functionality tests will be addressed.

## Step 4: Design Concepts

Design decisions and location	Rationale
Introduce modifiability tactics, more precisely, introduce Defer binding time - Polymorphism tactic to application repository / data layer	This will allow for database technology to be changed later on the application lifecycle without greatly impacting previous functionality
Introduce high cohesion and low coupling tactics	This will allow the solution to be more robust and easier to maintain and modify.
Introduce Builder pattern, fail fast, failing for a good state and immutability	Satisfy in order to ensure a more secure solution design

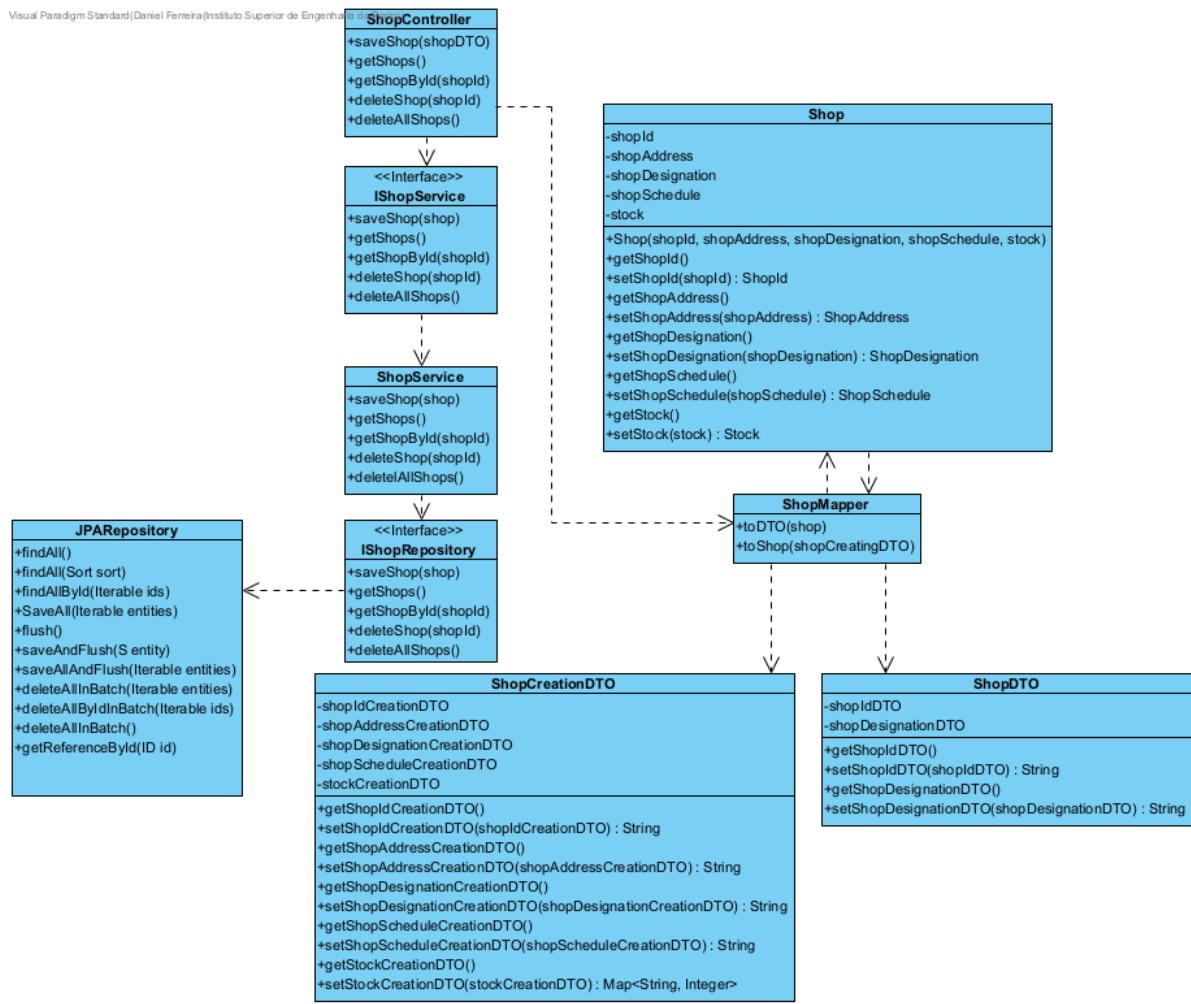
## Step 5: Instantiate architectural elements, allocate responsibilities and define interfaces

## Shop Aggregate

Element	Responsibility
ShopController	Example of a controller implementation, responsible for the endpoints that connects the solution with its exterior requests.
IShopService	Example of a service's interface implementation, which adds another layer of abstraction guaranteeing that the Controller and the Service do not contact with each other.
ShopService	Example of a service implementation, responsible for managing the requests and processing them.
IShopRepository	This will now be an interface that should be implemented for each of the different data layer technologies used.
ShopRepository	Example of a repository implementation. In this case this is a JPA repository.
ShopEntity	JPA Entity. Main objective is to detach JPA annotations from DDD entities.
ShopDTO	Data Transfer Object responsible to circulate throughout the solution. Represents another layer of abstraction since does not carry sensible information.
ShopMapper	Class to map domain entities to JPA entities.
ShopTests	Unit tests using JUnit to test sandwich functionality.

## Step 6: Sketch views and record design decisions

### Class diagram updated - Shop



## Design decisions

Design decision	Rationale
Widespread use of interfaces and implementation of these for specific technology purpose (SandwichRepository-SandwichRepositoryJPA)	QA4, make the application as modifiable as possible allowing the introduction of new database technologies later on the lifecycle.
Develop unit tests	CRN5, to ensure the core application code is behaving and most probably will behave as expected.
Use of ValueObjects from DDD to introduce some type of immutability	QA2, follow developed domain model.
Fail fast	Detect input errors the fast as possible to ensure no invalid value get to the lower layers of the solution.
JPA Criteria API Queries	use of JPA Criteria API queries when doing database queries which increase application security when it comes to SQL injection

## **Step 7: Perform analysis of current design and review iteration goal and design objectives**

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**Updated Kanban board**

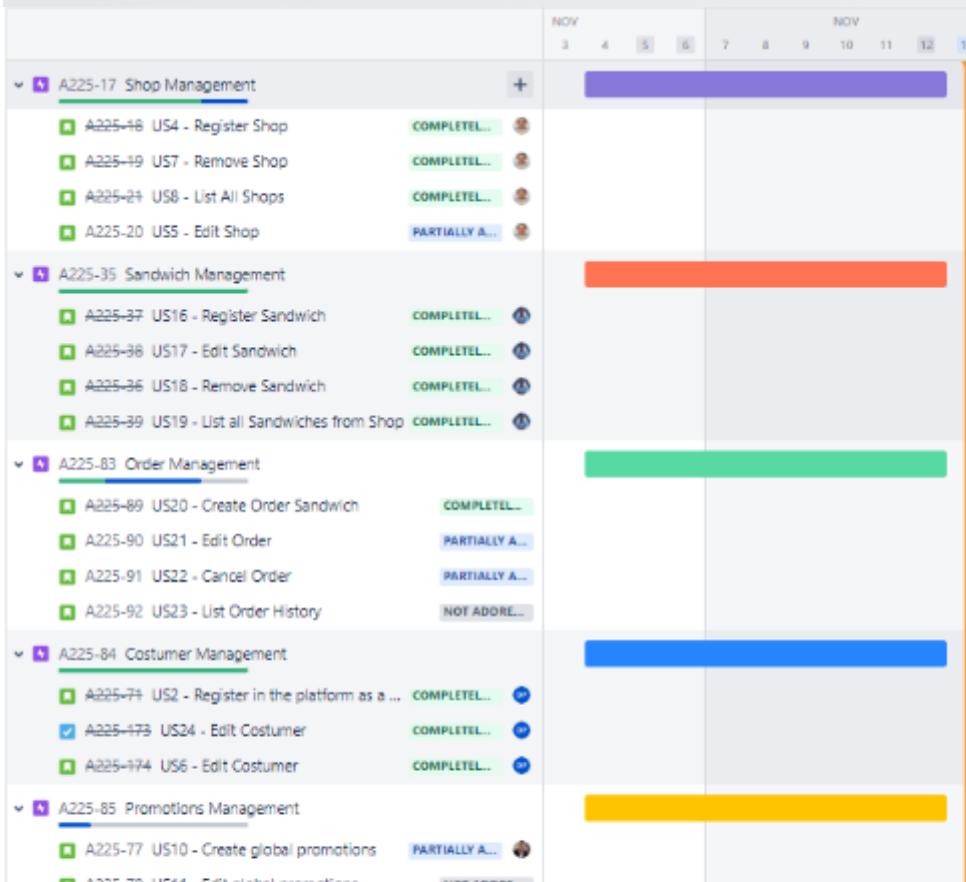




NOT ADDRESSED	PARTIALLY ADDRESSED	COMPLETELY ADDRESSED 30 ITENS
		+ Criar item
		+ Criar item
		ATAM Elaboration Design Documentation <input checked="" type="checkbox"/> A225-34 ✓ = 🧑
		ADD - 1º Iteração Design Documentation <input checked="" type="checkbox"/> A225-6 ✓ = DP 🧑
		ADD - 2º Iteração Design Documentation <input checked="" type="checkbox"/> A225-7 ✓ = 🧑
		US11 - Edit global promotions PROMOTIONS MANAGEMENT Design Implementation Testing <input checked="" type="checkbox"/> A225-78 ✓ = 🧑
		US5 - Edit Shop SHOP MANAGEMENT Implementation Testing <input checked="" type="checkbox"/> A225-20 ✓ = 🧑
		US13 - Edit Local Promotion PROMOTIONS MANAGEMENT Design Implementation Testing <input checked="" type="checkbox"/> A225-86 ✓ = 🧑
		US15 - List Promotions PROMOTIONS MANAGEMENT Design Implementation Testing <input checked="" type="checkbox"/> A225-88 ✓ = 🧑
		ADD - 3º Iteração Design Documentation <input checked="" type="checkbox"/> A225-8 ✓ = 🧑
		Sonargraph-Explorer Integration Configuration <input checked="" type="checkbox"/> A225-10 ✓ = 🧑
		Domain Model Design Documentation <input checked="" type="checkbox"/> A225-3 ✓ = 🧑
		Use Case Diagram Design <input checked="" type="checkbox"/> A225-14 ✓ = 🧑
		Project Setup Configuration <input checked="" type="checkbox"/> A225-9 ✓ = 🧑
		US1 - Register in the platform as a Manager

	<b>MANAGER MANAGEMENT</b> Implementation Testing A225-69
	<b>US3 - Change Shop Manager</b> <b>MANAGER MANAGEMENT</b> A225-72
	<b>US4 - Register Shop</b> <b>SHOP MANAGEMENT</b> Implementation Testing A225-18
	<b>US6 - Edit Costumer</b> <b>COSTUMER MANAGEMENT</b> Implementation Testing A225-174
	<b>US7 - Remove Shop</b> <b>SHOP MANAGEMENT</b> Implementation Testing A225-19
	<b>US8 - List All Shops</b> <b>SHOP MANAGEMENT</b> Implementation Testing A225-21
	<b>US10 - Create global promotions</b> <b>PROMOTIONS MANAGEMENT</b> Implementation Testing A225-77
	<b>US12 - Create Local Promotion</b> <b>PROMOTIONS MANAGEMENT</b> Design Implementation Testing A225-70
	<b>US16 - Register Sandwich</b> <b>SANDWICH MANAGEMENT</b> Implementation Testing A225-37
	<b>US17 - Edit Sandwich</b> <b>SANDWICH MANAGEMENT</b> Implementation Testing A225-38
	<b>US18 - Remove Sandwich</b> <b>SANDWICH MANAGEMENT</b> Implementation Testing A225-36
	<b>US19 - List all Sandwiches from Shop</b> <b>SANDWICH MANAGEMENT</b> Implementation Testing

	A225-39	✓
US20 - Create Order Sandwich		
<b>ORDER MANAGEMENT</b>		
Implementation Testing		
	A225-89	✓
US21 - Approve Order		
<b>ORDER MANAGEMENT</b>		
Design Implementation Testing		
	A225-90	✓
US22 - Cancel Order		
<b>ORDER MANAGEMENT</b>		
Design Implementation Testing		
	A225-91	✓
US23 - List Order History		
<b>ORDER MANAGEMENT</b>		
Design Implementation Testing		
	A225-92	✓
US14 - Edit Promotion Application		
<b>PROMOTIONS MANAGEMENT</b>		
Design Implementation Testing		
	A225-87	✓



A225-70 US11 - edit global promotions	<a href="#">NOT ADDRE...</a>	
A225-70 US12 - Create Local Promotion	<a href="#">NOT ADDRE...</a>	
A225-86 US13 - Edit Local Promotion	<a href="#">NOT ADDRE...</a>	
A225-87 US14 - Edit Promotion Application	<a href="#">NOT ADDRE...</a>	
A225-88 US15 - List Promotions	<a href="#">NOT ADDRE...</a>	
<b>A225-93 Manager Management</b>	<a href="#">+</a>	
A225-69 US1 - Register in the platform as a ...	<a href="#">COMPLETED...</a>	
A225-72 US3 - Change Shop Manager	<a href="#">NOT ADDRE...</a>	
A225-75 US9 - List Shop by Manager	<a href="#">NOT ADDRE...</a>	

<b>Iteration 3</b>		
Not Addressed	Partially Addressed	Completely Addressed
-	QA1,CON7	CRN1
-	-	CON1
-	-	CRN2
-	-	CON2
-	-	CRN5
-	-	QA4
-	-	CON3 , QA5
-	-	CRN3
-	-	CRN4
CON4	-	CON5
CON6	-	QA2
-	-	-
-	-	-