Andres Mauricio Mesa A00395353

Samuel Alvarez A00394750

CLIENTE	Mercado Libre
USUARIO	Administradores de Mercado Libre
REQUERIMIENTOS FUNCIONALES	R1: Register product R2:Create order R3: Search products R4:Search orders R5:information Storage R6:Search products/orders Menu
CONTEXTO DEL PROBLEMA	● The program must create files with the information registered ● The program should allow the user to register orders and products ● The program let the user search for products and orders by different attributes(name,category, etc)
REQUERIMIENTOS NO FUNCIONALES	RN1: three quality record cases in the "readme" file per each commit. RN2: record cases completeness at least 5 times of the functionalities waited. RN3: development using TDD. RN4:exception management to avoid unexpected states in the income and the search of product

Tabla de análisis de requerimientos funcionales (Nota: Una tabla por cada requerimiento funcional)

Nombre o identificador	R1: Register product		
Resumen	The system ask to user the necessary information for register a product after it received this data add the product to the program storage.		
Entradas	**Nombre entrada**	**Tipo de dato**	**Condición de selección o repetición**
	productName	String	The string isn't empty
	productQuantity	int	Is an integer
	price	double	Is a number
	category	enumeration	Is a valid option
	NumberOfSales	int	Is an integer
	Description	String	The string isn't empty
Actividades generales necesarias para obtener los resultados	The system will: 1. Ask the user fo the necessary information 2. Validate each input 3. Create an object of class product with the given values.		
Resultado o postcondición	The product's list updated with a new product		
Salidas	**Nombre entrada**	**Tipo de dato**	**Condición de selección o repetición**
	msj	String	

Nombre o identificador	R2: Create order		
Resumen	The system ask to user the necessary inputs,then create an object with this values and it is saved in the system's storage.		
Entradas	**Nombre entrada**	**Tipo de dato**	**Condición de selección o repetición**
	buyerName	String	The string isn't empty
	productList	String	The string isn't empty
	totalPrice	double	Is a number
	bougthDate	Calendar	

Actividades generales necesarias para obtener los resultados	The system will: 1. Ask the user fo the necessary information 2. Validate each input 3. Create an object of class order with the given values.		
Resultado o postcondición	The order's list updated with a new order		
Salidas	Nombre entrada	Tipo de dato	Condición de selección o repetición
	msj	String	

Nombre o identificador	R3:Search products		
Resumen	The system asks the user for information about the product such as category,name,price and number of shoppings,then compares the information with the database of products and it informs the user if there is a coincidence.		
Entradas	Nombre entrada	Tipo de dato	Condición de selección o repetición
	productName	String	The string isn't empty
	productQuantity	int	Is an integer
	price	int	Is an integer
	category	enumeration	Is a valid option
	NumberOfShoppings	int	IS an integer
	Description	String	The string isn't empty
Actividades generales necesarias para obtener los resultados	The system will: 1. Ask for the product's information 2. Compare given information with th information in the products list 3. Report if a coincidence was found		
Resultado o postcondición	the result of the searching		
Salidas	Nombre entrada	Tipo de dato	Condición de selección o repetición
	msj	String	

Nombre o identificador	R4: search order		
Resumen	The system asks the user for information about the order such as buyer name, total price and date of purchase,then compares the information with the database of orders and it informs the user if there is a coincidence.		
Entradas	Nombre entrada	Tipo de dato	Condición de selección o repetición
	buyerNamer	String	The string isn't empty
	totalPrice	double	Is a number
	datePurchase	calendar	
Actividades generales necesarias para obtener los resultados	The system will: 1. Ask for the orders information 2. Compare given information with th information in the orders list 3. Report if a coincidence was found		
Resultado o postcondición	the result of the searching		
Salidas	Nombre entrada	Tipo de dato	Condición de selección o repetición
	msj	String	

Nombre o identificador	R5: information storage

Resumen	The system will be able to store information of products and orders after being closed.		
Entradas	Nombre entrada	Tipo de dato	Condición de selección o repetición
	products	Product[ ]	There are objects in the array
	orders	Order[ ]	There are objects in the array
Actividades generales necesarias para obtener los resultados	The system will: 1. Verify that the product's list and order's list is not empty 2. If they are not empty,it generate a file with the information of the content in these list 3. Save the archive in the respective project´s directory		
Resultado o postcondición	A generated file with the list's information		
Salidas	Nombre entrada	Tipo de dato	Condición de selección o repetición
	list	Text file	Object's lists are not empty

Nombre o identificador	R6: search product/order menu		
Resumen	After the user selects the option of search the program will show a menu suitable for product or order data entry (it depends on which one you choose products / order).		
Entradas	Nombre entrada	Tipo de dato	Condición de selección o repetición
	option	int	Is an integer

Actividades generales necesarias para obtener los resultados	The system will: 1. Ask for what the user is looking for (products/orders). 2. Show a menu with the data entries.		
Resultado o postcondición	show a menu of the selected option menu searching		
Salidas	Nombre entrada	Tipo de dato	Condición de selección o repetición
	menú	String	

Name	Class	Stage
setupStage1	virtualStoreTest1	The product list is empty
setupStage2	virtualStoreTest2	The product list have elements added
setupStage3	productTest1	Object product have 0 in its attribute of productQuantities
setupStage4	productTest2	Object product have completeness in its attribute of productQuantities
setupStage5	atributtesTest1	the attributes of an object are complete and well done, so that they can be added to the binary tree.
setupStage6	atributtesTest2	if there are any missing or misspelled object attributes, they will not be added to the binary tree.
setupStage7	matchTest1	object inserted match with searching object
setupStage8	matchTest1	object inserted does not match with any of the objects of the list
setupStorage9	mainTest1	There are objects in the list of products and the list orders.
setupStorage10	mainTest2	There are not objects in any list.

Objetivo de la prueba: Match searching tests				
Clase	**Método**	**Escenario**	**Valores de entrada**	**Resultado esperado**
matchTest1	searchOrder / searchProduct	setupStage7	the search attribute selected	confirmation message that a match has been found
matchTest2	searchOrder / searchProduct	setupStage8	the search attribute selected	confirmation message no match found

Objetivo de la prueba: Validating that the orders quantities of product are coherent to the stock available				
Clase	**Método**	**Escenario**	**Valores de entrada**	**Resultado esperado**
productTest1	createOrder	setupStage3	Adding n numbers of the product to an order	Return a negative number
productTest2	createOrder	setupStage4	Adding n numbers of the product to an order	Return the number of units left.

Objetivo de la prueba: completeness of object attributes				
Clase	**Método**	**Escenario**	**Valores de entrada**	**Resultado esperado**
atributtesTest1	addOrder/ addproduct	setupStage5	attributes corresponding to orders or products	a message confirming that the object has

				been added successfully
atributtesTest2	addOrder/ addproduct	setupStage6	attributes corresponding to orders or products	a message confirming that the object has not been added because the information supplied was not sufficient or is incorrectly written or supplied.

Objetivo de la prueba: Adding objects to the store				
Clase	**Método**	**Escenario**	**Valores de entrada**	**Resultado esperado**
virtualStoreTest1	addProduct	setupStage1	An object of class product	Object added returned by the method searchProduct
virtualStoreTest2	addProduct	setupStage2	An object of class product with the same name of a preexistant product	Message informing thatb there is already an product with the same name

Objetivo de la prueba: Validation of creation of file with information registered in the program				
Clase	**Método**	**Escenario**	**Valores de entrada**	**Resultado esperado**
mainTest1	generateFile	setupStorage9	An arraylist of orders and An arraylist of products	Message informing the creation of the

				files respective directory in the project updated with th files.
mainTes2	generateFile	setupStorage10		A message informing there is not data to be save.