



Cairo University
Faculty of Computers and Artificial Intelligence
IS Department

Course code: IS332
Course: Analysis and Design of Information Systems
Under supervision: Dr. Iman Helal – Dr. Dina Ezzat
Academic Year: 2022-2023

Project Details

Project number *1*
Project title *mega store corporation*

Corresponding TA\LA *Lamia*
Deliverable *1*

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1. Use cases model:

1.1. Using Event Decomposition technique:

Table 1- Types of Events

1.1.1. Types of Events

Event	Type (External/State/temporal)
The customer can create customer account	External
The customer searches for a product on the website	External
Customer adds the product to the cart	External
The customer sees the offers for the products	External
The customer can pay	External
The customer chooses the payment method	External
The customer can buy the product	External
The customer cancels the order	External
The customer returns product	External
Customer enters his location	External
Admin can add a new offer	External
Admin can change the price of products	External
Admin can add products	External
Admin can remove products	External
Supplier provides variations of products	Temporal
Customer gain points after purchasing from the physical store	Temporal
Cancel the offers after the season ends	Temporal
System decides what to do about return products based on policy	State



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1.1.2. Formalize events with use cases

Table 2- Formalizing Events to use cases

Event	Type (External/State/temporal)	Use case
The customer can create customer account	External	Create customer account
The customer searches for a product on the website	External	Search for a product
Customer adds the product to the cart	External	Add to cart
The customer sees the offers for the products	External	Show offers and discounts
The customer can buy the product	External	buy product
The customer chooses the payment method	External	Choose the payment method
The customer can pay	External	pays for the product
The customer cancels the order	External	cancel order
The customer returns product	External	return product
Customer enters his location	External	Enter location
Admin can add a new offer	External	Add offer
Admin can change the price of products	External	change the price
Admin can add products	External	add product
Admin can remove products	External	remove product
Supplier provides variations of products	Temporal	Supplying warehouses
Customer gain points after purchasing from the physical store	Temporal	Gain points
Cancel the offers after the season ends	Temporal	Cancel the offers
System decides what to do about return products based on policy	State	Check return policy



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1.1.1. Use case Descriptions:

Table 3 - Use cases descriptions

Use case name	Actor	Description
Create customer account	On-site Customer	The Customer enter new data for the account and the system assigns account number
Search for a product	Off-site Customer	The user starts looking for a specific product by entering keywords. The system shows the products depending on the keywords entered by the user if it's available, otherwise, a pop up message shows that either products are not available or there is an error in entered word
Add to cart	Off-site Customer	The customer chooses a product and press add to cart, The system stores chosen products and save the data until user checks it later
Show offers and discounts	Off-site Customer	When the customer enters the UI of system he can press show offers to view the offers provided by the system, The system shows available offers if there are offers or pops a message that there are no offers for the mean time



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buy product	Off-site Customer & On-site Customer	The user is directed to an external window to make the order after adding the products to the cart. The system will redirect the customer to payment window
Choose the payment method	Off-site Customer	After redirection of customer to payment window the customer chooses the suitable payment method for him either visa or cash etc....
pays for the product	Off-site Customer	The user chooses one of the payment methods available to purchase the products, after selecting one method the system approves the payment method for the selected products that were add to the cart
cancel order	Off-site Customer	After confirming payment process and before the delivery of product the customer can cancel the order using this use case
return product	Off-site Customer & On-site Customer	The user request to return the purchased products back to the mega store. The system checks at first the policy of the products if it's not violating it. Then the user gets a notification to be informed about the return process



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Enter location	On-site Customer	After creating account the customer should enter location of his country
Supplying warehouses	Supplier	The supplier provides various products to the warehouse of supermarket
Gain points	On-site Customer & Off-site Customer	The customers that purchase products either on-site or off-site gains points for using eco-friendly and reusable bags. The system stored these points for the customer and the user can check them and use them whenever he/she wants
Add offer	Admin	The admin of the system add offer campaign to some products on the system
Cancel offer	Admin	The admin can cancel the offers made by him
change the price	Admin	The administrator enters the system to change the offers provided on the system. The system updates the data given by the administrator to be shown to customers
add product	Admin	The admin can add product to the system



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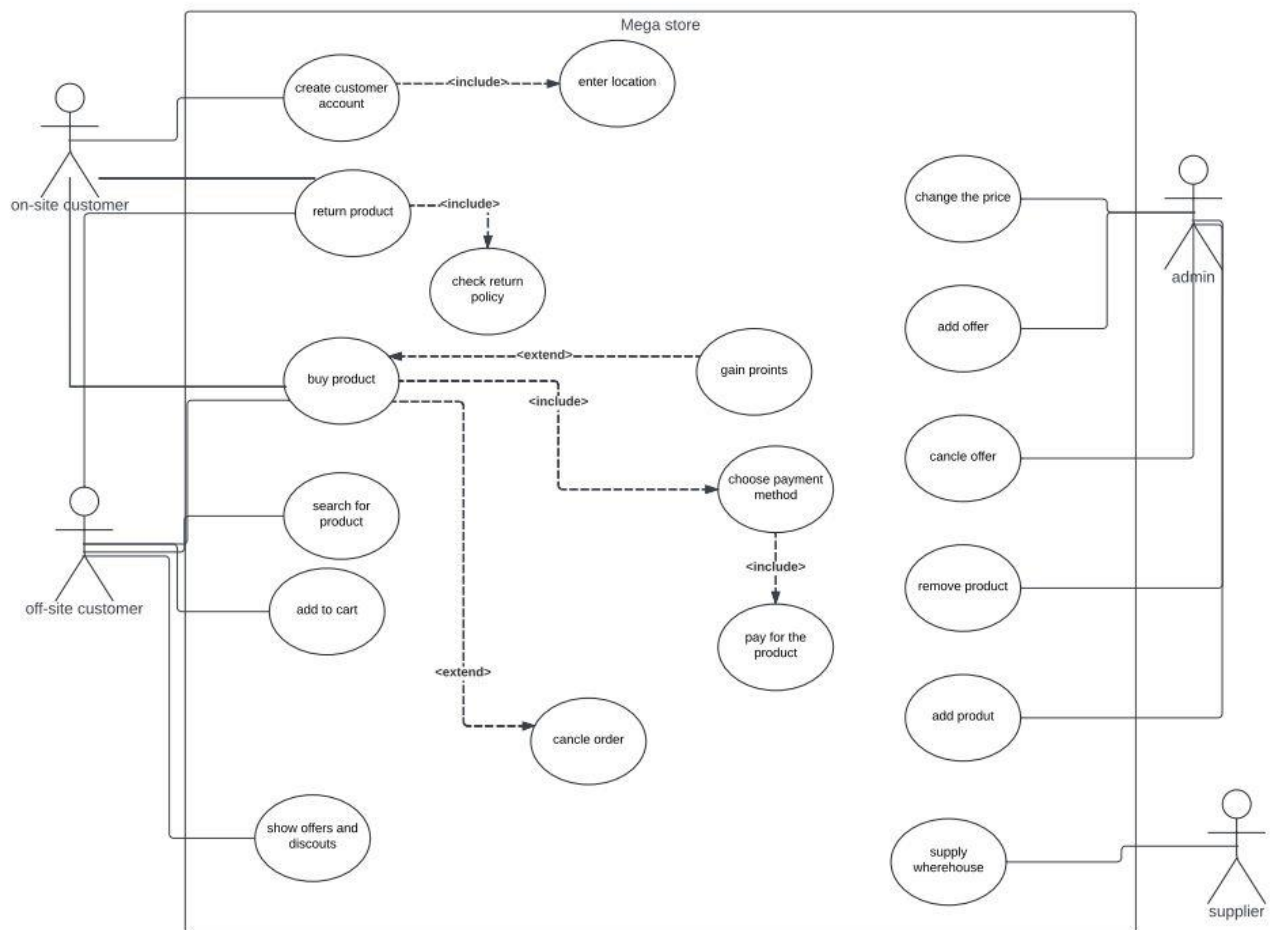
remove product	Admin	The admin can remove product to the system

1.1.1. Matrix that maps all domain classes to the set of use cases

Use case Vs. Domain Class	Domain Class 1	Domain Class 2
Search for a product	Product	customer
Add to cart	cart	
Show offers	offer	
Choose the payment method	payment method	
Enter location	location	
Supplying warehouses	Supplier	
Gain points	points	
Cancel the offers	Season	



1.1.3. Use case Diagram:



Note that:

You must use a tool, no hand-made model will be accepted.



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Please state/mention which **tool** you have used at the end of the document.

[Using any CASE tool]

ArgUML
StarUML
Signavio {}
Bizagi modelling tool
...

[Hint: Review Chapters 3 – 4: Use cases & domain classes]