Lebanese American University

ITM420

System Analysis and Design

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I. Company Overview:

Le Chateau Du Chocolat Sarl is a chocolate company located in Zouk Mosbeh, Lebanon, owned by Nasri Bitar. It specializes in sweets trading and industry, as well as chocolate production and trading. This particular factory is unique in Lebanon as it has all the equipment needed to make chocolate from scratch. Unlike most chocolate factories in Lebanon which import raw chocolate and melt it, this factory has a specific machine for raw cocoa beans that distills the cocoa from the cocoa butter.

II. Purpose:

The purpose of this document is to provide insight into Le Chateau Du Chocolat Sarl's chocolate factory system and how it is integrated to account for all the processes that take place for the production and sale of chocolate.

III. Scope:

The functions of the chocolate factory's departments form the core of this document, including production, selling, and shipping/delivery. This document will be used to validate the system at the end of the software development cycle, and these requirements cannot be modified under any circumstances without formal approval.

IV. Overview:

This report provides an overall description of Le Chateau Du Chocolat Sarl's chocolate factory system. It includes system requirements, functions, characteristics of users, and constraints to keep in mind while developing the system. The report also discusses specific requirements of each department and function, including both functional and non-functional aspects.

Le Chateau Du Chocolat Sarl's chocolate production process involves importing high-quality cocoa beans and creating chocolate from scratch, from distilling the cocoa from the cocoa butter to creating the finished product. Part of the chocolate is made into blocks for other factories to melt and alter, while the rest is made into chocolate bars under specific client requests. The owner designs the flavors, creates the chocolate, lets the client test them, and after approval, produces batches of the chocolate and packages them without his brand name.

The company operates under a B2B and B2C model, producing its own recipes and chocolate bars, selling them directly to consumers with their logo on them. During the COVID-19 pandemic, business was slow, so the owner built a fully equipped kitchen in his factory and hired pastry chefs to make high-quality brownies, fondant, and sable, using the high-quality chocolate that the factory produces. These products can also be sold under a B2B or B2C model and are professionally packaged and freezer ready.

V. System Functions:

- Take orders from clients through the system: The company's system allows clients to place orders for chocolate products, either for B2B or B2C purposes. The orders can be received through the system, which ensures a streamlined and organized process.
- Send approval/rejection to order: Once an order is received, the system is used to approve or reject it based on various factors such as availability of ingredients, production capacity, and delivery schedules.
- Gather client information: The system allows for the collection and storage of client information such as contact details, delivery preferences, and order history for future reference and improved customer service.
- Store invoices and receipts in a financial database: The system is used to store invoices and receipts, ensuring accurate financial records and facilitating financial management.
- Track inventory to General Manager: The system is used to convey inventory information to the General Manager, providing an overview of the stock levels and facilitating inventory management.

- Track list of available suppliers to General Manager to make raw material orders: The system allows for the conveyance of the list of available suppliers to the General Manager for efficient raw material sourcing.
- Keep General Manager up to date on Cocoa (raw material) orders: The system is used to keep the General Manager informed on raw material orders and deliveries, ensuring smooth production processes.
- Inform Secretary and Delivery Workers when product is ready for delivery/pickup: The system is used to inform the Secretary and Delivery Workers when the products are ready for delivery or pickup, ensuring efficient and timely delivery of the products to clients.
- Inform Client on pickup details and/or delivery request details & status: The system is used to inform the client of the pickup and delivery details, keeping them up to date on the status of their orders.

System Limitations:

The system had some limitations due to the lack of resources like money and time, as well as the poor economic situation in the country. One limitation was that it was designed only for local or domestic use and could not accommodate the needs of foreign clients and companies, such as dealing with currency exchange, international logistics and delivery, and unique products. Another limitation was that customers could not track their shipments.

Furthermore, there was no provision in the system to notify customers of new products and offers, despite their contact information being part of the client data structure.

VI. Interview Report number 1:

Date	8/3/2023
Duration	45 minutes
Person Interviewed	Nasri Bitar
Position	Owner
Medium of communication	Webex

1- How many departments do you have and what are the main functions of each department?	There are 5 different departments (manufacturing and production, accounting, sales, marketing, and HR)
2- How many locations do the processes take place in?	The company is located in Zouk Mosbeh.
3- What is the process for producing chocolate	We import high-quality Cocoa beans and produce the chocolate from scratch. Depending on the customer we make large blocks of chocolate for businesses or regular chocolate bars for customers
4- What are the different types of clients?	The company operates under B2B or B2C model. If selling for customers directly then the chocolate bars are packaged under our logo. But if we are selling to businesses the chocolate is made in larger blocks and ready for other factories and businesses to melt and freeze.
5- How many employees work at your firm and what are their roles	In the manufacturing department there are 4 workers who are managed by the manager, 2 delivery workers in the delivery department, and an administrator that acts as a middleman between the manager, and the delivery workers.
6- How do you communicate with your clients?	Communicating with our clients is one of the most important factors as we need to know about the type of the order and then we update them about the status and updates of the order and delivery or pick up dates.

Interview Report number 2:

Date	12/3/2023
Duration	45 minutes
Person Interviewed	Nasri Bitar
Position	Owner
Medium of communication	Webex

Num	Question	Response
01	How many departments does your company have	The main department of my company is the manufacturing department. We also have an HR and finance department as well as an accounting department. The sales department could be mentioned also, but it is not as established since I am the person that mainly negotiates with customers
02	How does the manufacturing department handles chocolate requests	After the request's approval and lots of negotiations with the client. The raw material ordered (mainly cocoa beans) are firstly cleaned thoroughly using special sanitization machine. The beans are then processed in a special machine that will distill them and separate the cocoa substance (known as cocoa powder) from the cocoa butter. The cocoa butter is extracted and is stored because it will be used in different recipes, mainly in making

		white chocolate. The cocoa powder, along with different ingredient are then further processed into a final chocolate product. The chocolate demand is then stored adequately, waiting for delivery to the client.
03	How are chocolate requests handled by the sales force	Typically, a client would contact us through email via telephone. After which a request form will be sent for the client to fill. The form includes a description of the request, the amount, the time needed for delivery, and the flavors that the client would like to order. Additional business information will also be included such as the purpose of this demand (B2B or B2C), as well as the packaging request of the client. After we receive the request from the client, it will be thoroughly evaluated on all aspects. The main conditions we look for are the quantity and expected time of delivery, which will decide if the request should be approved or not. After approval, the request will be transformed into an internal manufacturing request that will be sent to the manufacturing department for processing
04	What is the accounting department responsible for?	The accountant will mainly record the costs of manufacturing as well as payroll and all the information will be stored in the system for future reference. The accountant is also responsible for creating costs tables for each item in order for us to price it adequately after adding profit margins.

		The accountant is also responsible for generating invoices to clients as well as establishing different payment methods for them that will be tracked each month.
05	What is the Human Resource department responsible for?	The HR department is primarily responsible for maintaining the workforce and looking for adequate candidates to hire. The candidate will be evaluated based on his application (by the HR) but ultimately, I (the owner) will need to approve of that new employee. The HR is also responsible for improving the employees work life by offering special services
06	How do you deliver your products?	We currently operate one refrigerated van that is used to deliver all the products. Before delivery, the batch needs to be evaluated and approved upon. After that, it will be delivered to the client

VII. Functional Requirements:

Sales B2B Process

- The customer can order at any time.
- The customer fills an order request and sends it to the manager.
- The manager evaluates the order request; the order request can be approved/rejected based on the quantity and time of delivery.
- The manager translates the order request into a manufacturing request for internal use.
- Manufacturing department start production when they receive the manufacturing request from the manager.
- When the manufacturing department complete the production store the completion status.
- The completion status is stored in the database and the manager can access the database.
- The order will be stored in the storage facility.
- Delivery and pick up dates are set by the client.
- The administrator sends a reminder to the client for delivery.
- When the client replies the administrator sends delivery information to the delivery department
- The delivery department delivers the order to the client.

Sales B2C Process:

- The customer can order at any time through the website.
- The order is transferred to the manufacturing department.
- The manufacturing department fulfills the order.
- When the manufacturing department completes the production, they store the completion status.
- The completion status is stored in the database and administrator can access the database.
- The order will be stored in the storage facility.
- The administrator sends delivery information to the delivery department.
- The delivery department delivers the order to the client.

Supplier Raw Material Process

- The raw materials are ordered from the supplier only if inventory is missing for production.
- The manager sends a supplier request form to suppliers.
- The supplier sends offers to the manager.
- The manager evaluates the offer.
- The manager orders the desired offer.
- The supplier sends the raw materials to the manufacturing department.

Accounting Process

- The customer receives the order.

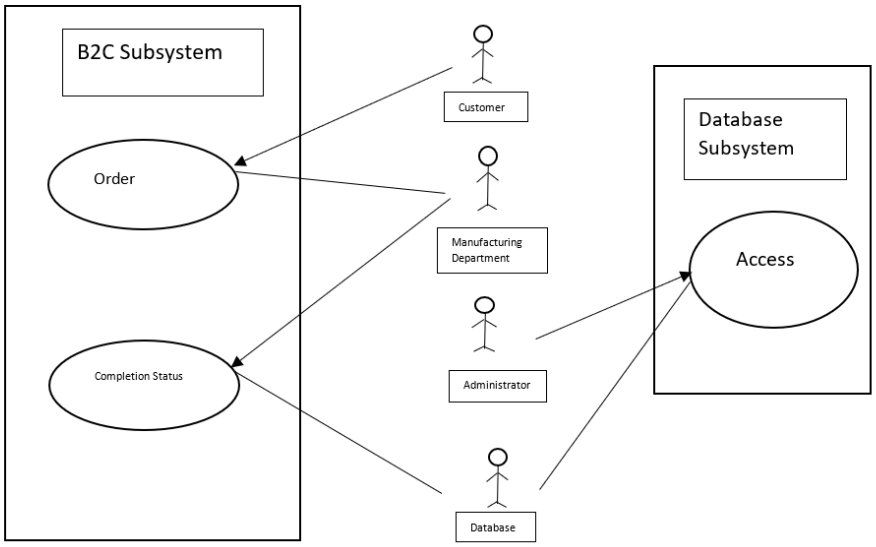
- The accounting department generates the invoice.
- The invoice is stored in the database.
- The administrator sends the invoice to the customer.
- The customer receives and pay the invoice.
- The administrator validates the payment and store it in the database.
- The accounting department update the ledger account according to the stored payments in the database.

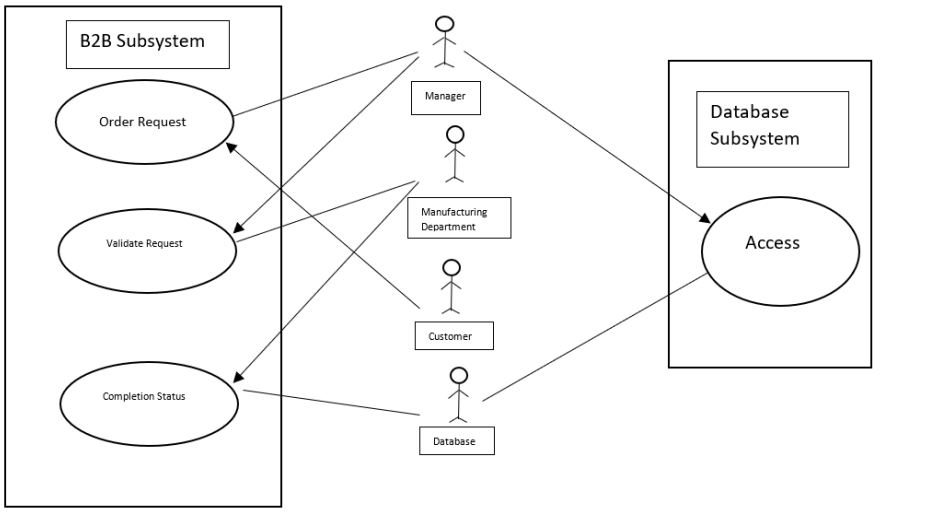
VIII. Non-Functional Requirements:

a) Security: The system should be designed to protect sensitive information from unauthorized access or manipulation.
b) Performance: The system should be able to handle a high volume of requests and provide quick response times to ensure a smooth user experience.
c) Availability: The system should be available for use 24/7 with minimal downtime for maintenance or upgrades.
d) Scalability: The system should be able to handle an increasing number of users and data without impacting performance or functionality.
e) Usability: The system should be easy to use, intuitive, and provide clear instructions for users with varying levels of technical expertise.
f) Reliability: The system should be reliable and operate without errors or unexpected downtime.
g) Maintainability: The system should be designed with ease of maintenance and updates in mind to minimize the need for significant downtime or development effort.
h) Compatibility: The system should be compatible with commonly used browsers and devices to ensure accessibility for a broad user base.
i) Accessibility: The system should be accessible for users with disabilities, conforming to relevant accessibility guidelines and standards.
j) Compliance: The system should comply with relevant laws, regulations, and industry standards.

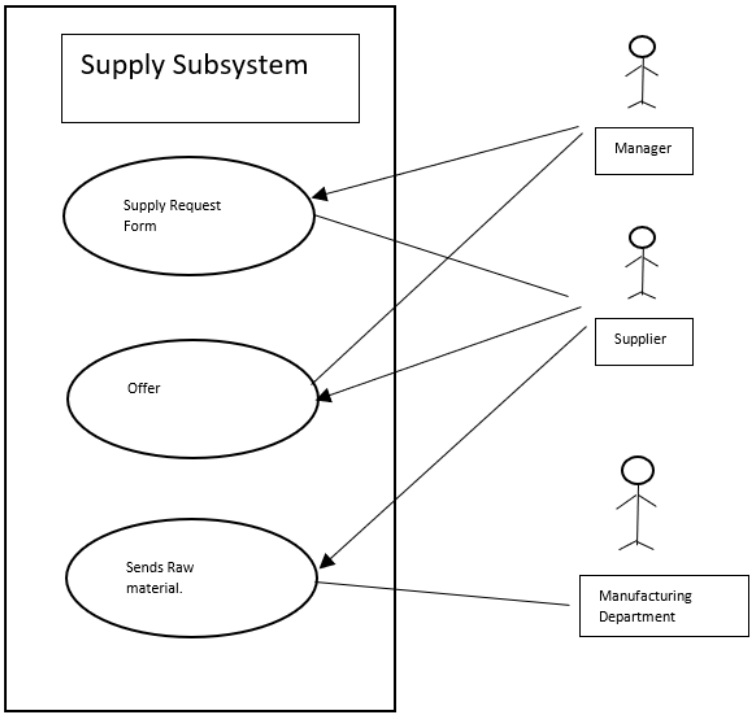
IX. Use Case Diagrams:

B2C Subsystem

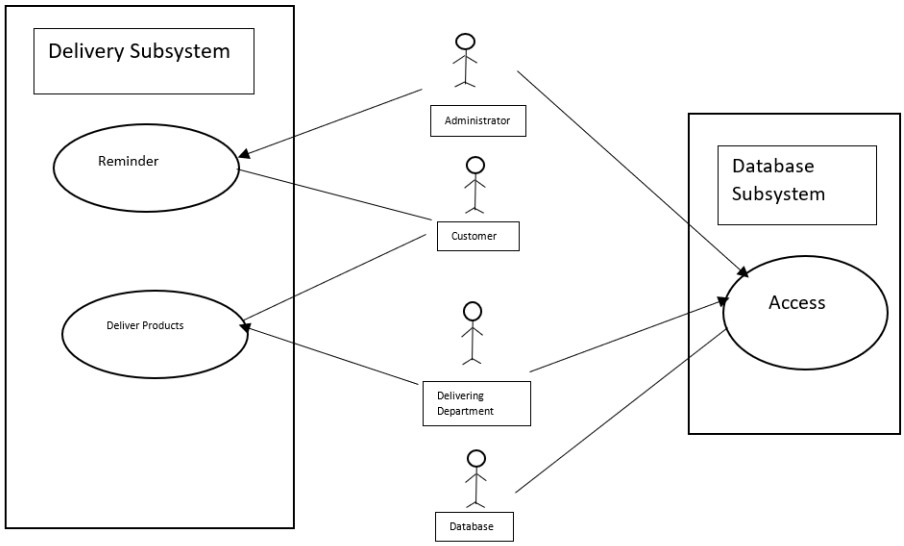




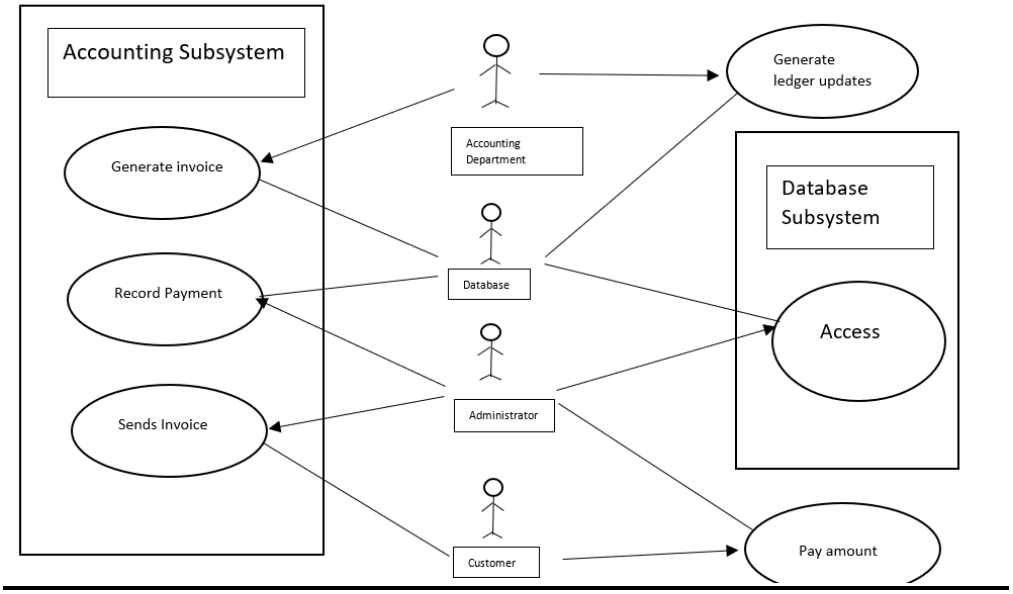
Supply Raw Material Process



Delivering Process



Accounting Subsystem



X. Use case Narrative:

Actor and Use Case List:

Actor	synonym	description
Manager	Owner	The owner of the factory
Customer		Potential customer (could be a regular customer or a business requesting orders)
Supplier		Companies that supply raw material to the chocolate factory
Database system		Database system where all information stored
Administrator	Secretary	Responsible for organizing and notifying customers
Delivery Department		Responsible for deliver goods to customers
Manufacturing Department		Responsible for manufacturing the chocolate
Accounting Department		Responsible for generating invoices and update company ledgers

Use Cases:

use cases	description	actors
Order Request	this use case describes the request of a business for large amounts of chocolate from the factory	B2B client
Order	this use case describes the request of a regular customer for small amounts of chocolate from the factory	B2C client
Validate Request	This use case describes the validation of the B2B order request by the manager. If it's valid, the request is sent to the manufacturing department	Manager
submit completion status	this use case describes the actions done by the manufacturing department to indicatre that the request order has been completed	Manufacturing department
submit supply from	this use case describes the action done by the manager to procure raw materials	Manager Supplier
submit supply offer	this use case describes the actions done by the potential supplier in order to suggest an offer to the manager	supplier (primary actor)
send raw materials	this use case describes the actions done by the supplier when the raw materials are procured to the company	supplier (primary actor)
Remind customer for delivery	this use case describes the actions done by the administrator to remind the B2B and B2C customer of its order before delivery	administrator
Deliver Products	this use case describes the actions done by the delivery department to deliver the chocolate to both B2C and B2B customers	Delivery department
Access	this use case describes the access request done by certain actors in order to access the shared database	administrator, manager
Generate Invoive	this use case describes the actions done by the accounting department to generate the B2B customers' invoices	Accounting department

Send Invoice	this use case describes the actions done by the administrator department to send the invoice to the respective customer	Administrator
Pay Invoice	this use case describes the actions done by the customer to settle their invoice	Customer
Record Payment	this use case describes the actions done by the administrator department to record or validate that the customer has settled their payments	Administrator
Update Ledger accounts	this use case describes the actions done by the accounting department to update the company's ledger accounts according to the settled invoives	Accounting department

1- B2B Order Request:

use case name	Order Request	
use case ID	UC01	
primary business actor	Customer	
other participating actor	manager	
other interested stakeholder	manufacturing department	
description	this use case describes the request of a business for large amounts of chocolate from the factory. The client will have to include the amount of chocolate to order, the specification of the chocolate, the expected delivery date, the branding conditions, and many more	
precondition		
trigger		
typical course of events	**actor action**	**system response**
	step1: an order request is sent by the B2B client to the manager	step2: the order request is sent to the manager for validation
alternate course		
business rules		

2- B2C Order Request

use case name	B2C Order	
use case ID	UC02	
primary business actor	Customer	
other participating actor	manager	
other interested stakeholder	manufacturing department	
description	This use case describes the request of a regular customer for small amounts of chocolate from the factory. The client will have to include the amount of chocolate to order, the type of chocolate, delivery information(address) and personal information like contact details and name.	
precondition		
trigger		
typical course of events	**actor action**	**system response**
	step1:an order is sent by the B2C client to the manufacturing department	step2: the order is sent to the manufacturing department to get fulfilled
alternate course		
business rules		

3- Validate Order Request:

use case name	Validate Order Request	
use case ID	UC03	
primary business actor	Manager	
other participating actor	manufacturing department	
other intrested stakeholder	Customer	
description	this use case describes the validation of the B2B order request by the manager. If it's valid, the request is sent to the manufacturing department. If it is not, the manager will contact the customer and elaborate on what could be wrong or misleading in their order request.	
precondition	That the customer successfully submitted the order request	
trigger	order request was sent to the manager	
typical course of events	**actor action**	**system response**
	step1: Manager validates the order request based on the specifications mentioned in the "order Request" description	step2: the order request is sent to the manufacturing department
alternate course	alt1- if the order request is not valid, the manager will disregard it and will contact the client to elaborate on why he did that decision	
business rules	The amount requested should be reasonable	
	the expected delivery time should be reasonable	
	the customer details should be accurate	

4- Submit Completion Status:

use case name	Submit Completion Status	
use case ID	UC04	
primary business actor	Manufacturing Department	
other participating actor	Database	
other intrested stakeholder	Manager	
description	this use case describes the actions done by the manufacturing department to indicate that the request order has been completed. The use case helps the manager and the administrator to procceed with the sales process	
precondition	The manufacturing department start the production process	
trigger	the production process is completed	
typical course of events	**actor action**	**system response**
	step1: the manufacturing department work on the production of the chocolate order	step3: the completion status is stored in the database
alternate course		
business rules		

5- Submit Supply Form:

use case name	Submit Supply Form	
use case ID	UC05	
primary business actor	Manager	
other participating actor	Supplier	
other intrested stakeholder	Manufacturing Department	
description	this use case describes the action done by the manager to procure raw materials	
precondition		
trigger	a decrease in inventory	
typical course of events	**actor action**	**system response**
	step1: the manager fills a supply form that includes all the needed raw materials	step2: the supply form is sent to the potential suppliers
alternate course		
business rules	the supply form should include accurate information	

6- Submit Offer Form:

use case name	Submit Offer Form	
use case ID	UC06	
primary business actor	Supplier	
other participating actor	Manager	
other interested stakeholder		
description	this use case describes the actions done by the supplier when the raw materials are procurred to the company as they send offers to the manager for approval.	
precondition	The manager sends the supply form	
trigger	The raw material are not available in the inventory	
typical course of events	**actor action**	**system response**
	step1: The supplier sends the offer to the manager	step3: the raw materials are prepared by the supplier for deliver
alternate course	step 2: the manager chooses the desired offer	
business rules		

7- Send Raw Material:

use case name	send raw materials
use case ID	UC07
primary business actor	Supplier
other participating actor	Manufacturing department
other intrested stakeholder	Manager
description	this use case describes the actions done by the supplier when the raw materials are procurred to the company
precondition	The manager accepted the supplier's offer
trigger	Contract was made between the supplier and the company

typical course of events	**actor action**	**system response**
	step1: The supplier prepares the raw materials to be sent	step2: the raw materials are sent to the manufacturing department

alternate course	
business rules	

8- Remind Customer for Delivery:

use case name	Remind customer for deliver
use case ID	UC08
primary business actor	Administrator
other participating actor	Customer
other intrested stakeholder	Database
description	this use case describes the actions done by the administrator to remind the B2B and B2C customer of its order before delivery
precondition	The manufacturing department sent the completion status
trigger	The order is completed and ready for delivery

typical course of events	**actor action**	**system response**
	step1: The administrator gets customer personal information from database step2: the administrator reminds the customer of the delivery time of order	step2: the order gets collected by the delivery department
alternate course		
business rules		

9- Deliver Products:

use case name	Deliver Products	
use case ID	UC09	
primary business actor	Delivery Department	
other participating actor	Customer	
other interested stakeholder	Administrator	
description	this use case describes the actions done by the delivery department to deliver the chocolate to both B2C and B2B customers	
precondition	The products are completed and are ready to be delivered	
trigger	delivery departments were instructed to deliver the products	
typical course of events	**actor action**	**system response**
	step1: The delivery department adequately store the products in the refrigerated vans	
alternate course	step2: the products are delivered to the customers	
business rules	the order should be ready to be delivered and in good condition	

10- Access:

use case name	Access	
use case ID	UC10	
primary business actor	Manager, Administrator	
other participating actor	Database System	
other interested stakeholder	Customer	
description	this use case describes the access request done by certain actors in order to access the shared database	
precondition		
trigger	the manager or the administrator need reference from the database	
typical course of events	**actor action**	**system response**
	step1: Manager or administrator enter their login information to access the database	step2: the manager or administrator is provided with the requested information
alternate course	alt1- the database does not contain the information needed by the manager or administrator alt2- the manager or administrator searches for information manually	
business rules		

11- Generate Invoice:

use case name	Generate Invoive	
use case ID	UC11	
primary business actor	Accounting Department	
other participating actor	DataBase	
other intrested stakeholder	Administrator	
description	this use case describes the actions done by the accounting department to generate the B2B customers' invoices	
precondition	The products are completed and delivered to the customer	
trigger	the customer receives their order	
typical course of events	**actor action**	**system response**
	step1: After Confirming that the products have been delivered	step3: The invoice is stored in the database system, waiting for it to be delivered to the customer
alternate course	step2: the accounting department generates a customer invoice based on the information present in the database	
	alt1: the order was not successfully delivered to the customer	
	alt2: the accounting is unable to generate an invoice and it is up to the delivery department to rectify the delivery problem	
business rules	the order should be delivered to the customer	

12- Send Invoice:

use case name	Send Invoice	
use case ID	UC12	
primary business actor	Administrator	
other participating actor	Customer	
other interested stakeholder	Administrator	
description	this use case describes the actions done by the administrator department to send the invoice to the respective customer	
precondition	The accounting department has successfully generated the invoice and the invoice was stored in the shared database system	
trigger	the customer receives their order	
typical course of events	**actor action**	**system response**
	step1: The administrator reads the invoice stored in the database	step2: The administrator sends the invoice to the customer
alternate course	alt1: the invoice was not successfully stored in the database system	
	alt2: the administrator is unable to send the invoice to the customer and it is up to the accounting department to rectify the invoice problem	
business rules	the invoice should be stored in the database system	
	the invoice should be sent to the customer	

13- Pay Invoice:

use case name	Pay Invoice	
use case ID	UC13	
primary business actor	Customer	
other participating actor	Administrator	
other interested stakeholder	Database system	
description	this use case describes the actions done by the customer to settle their invoice	
precondition	The administrator has to send the invoice to the customer	
trigger	The customer receives his invoice	
typical course of events	**actor action**	**system response**
	step1: The customer receives the invoice	step3: The administrator is notified that the amount was settled
	step2: the customer settles their invoice	
alternate course	alt1: the invoice was not successfully received by the customer	
	It is up to the administrator to rectify that issue	
	alt2: the customer did not settle their invoice	
	It is up to the administrator to contact the customer nd rectify that issue	
business rules	the invoice should be sent to the customer	
	the invoice should be settled by the customer	

14- Record Payment:

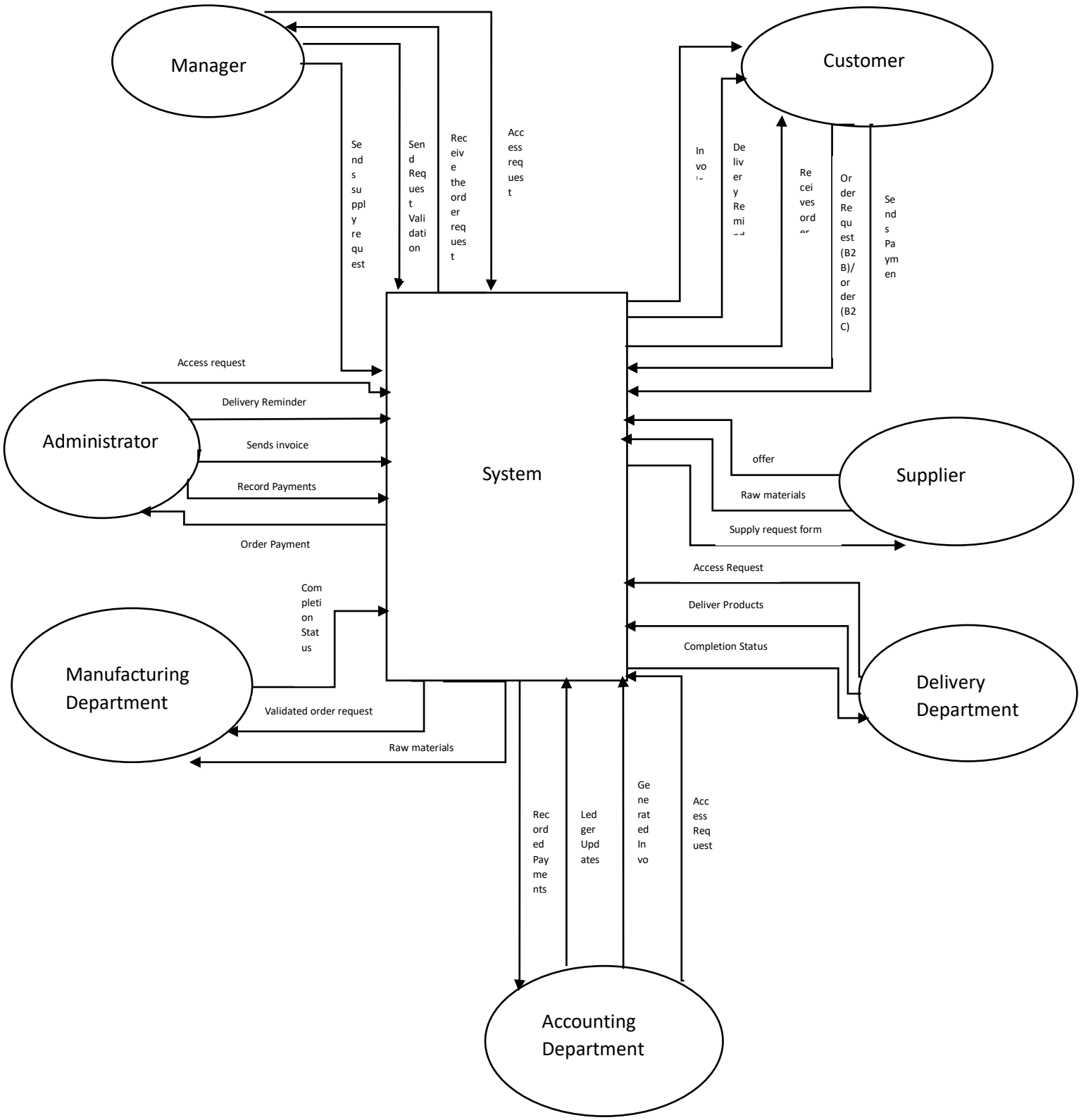
use case name	Record Payment	
use case ID	UC14	
primary business actor	Administrator	
other participating actor	Database system	
other interested stakeholder	customer	
description	this use case describes the actions done by the administrator department to record or validate that the customer has settled their payments	
precondition	The customer had settled their payment	
trigger	The customer had settled their payment	
typical course of events	**actor action**	**system response**
	step1: The customer settles their payment step2: the administrator updates the database system regarding invoive settlements	step2: The administrator is notified that the amount was settled
alternate course	alt2: the customer did not settle their invoice It is up to the administrator to contact the customer nd rectify that issue	
Business Rules	The customer had settled their payment	

15- Update Ledger Accounts:

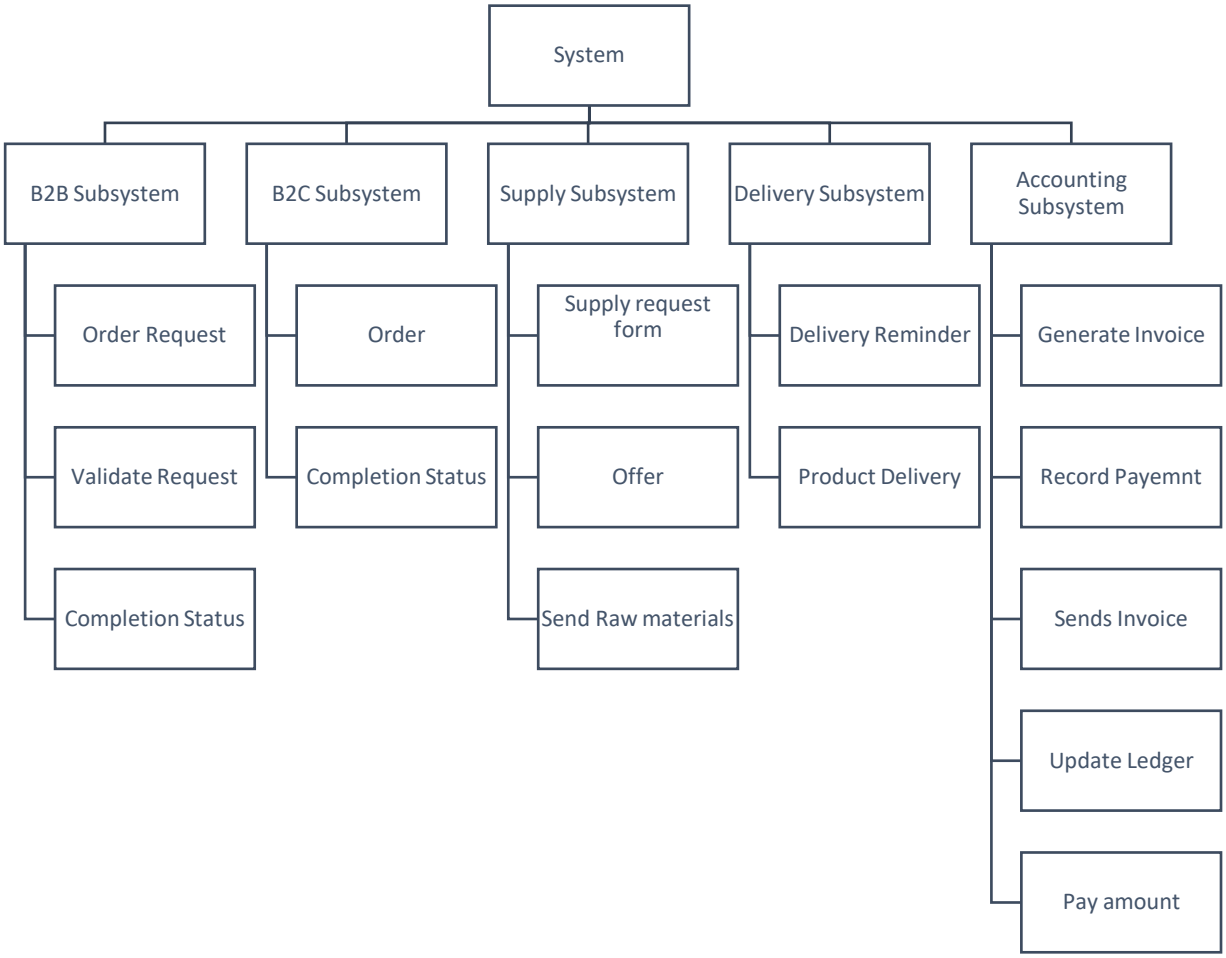
use case name	Update Ledger account
use case ID	UC15
primary business actor	Accounting department
other participating actor	Database system
other interested stakeholder	
description	this use case describes the actions done by the accounting department to update the company's ledger accounts according to the settled invoices
precondition	The administrator stored the payment in the database
trigger	The customer paid the invoice successfully

typical course of events	**actor action**	**system response**
	step1: The accounting department access the database for recorded payments	
	step2: the accounting department updates the ledger account	
alternate course	alt1: the payment was not successfully stored in the database	
	It is up to the administrator to rectify that issue	

XI. Context Diagram:

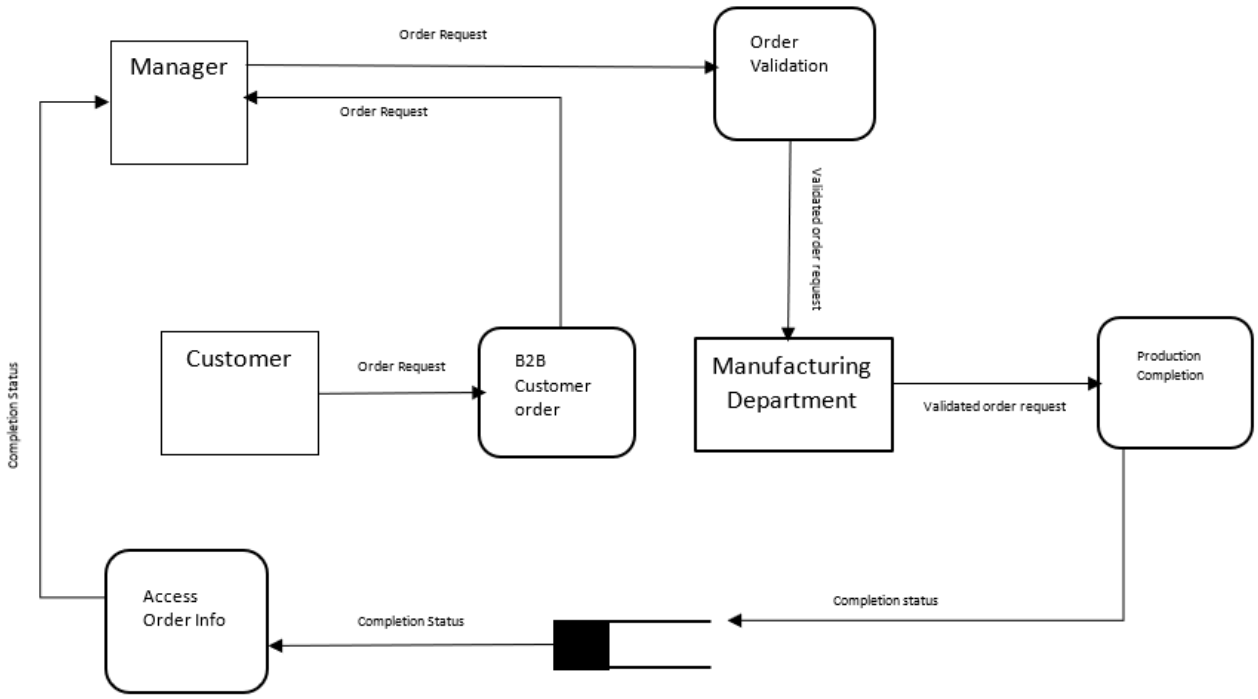


XII. Decomposition Diagram:

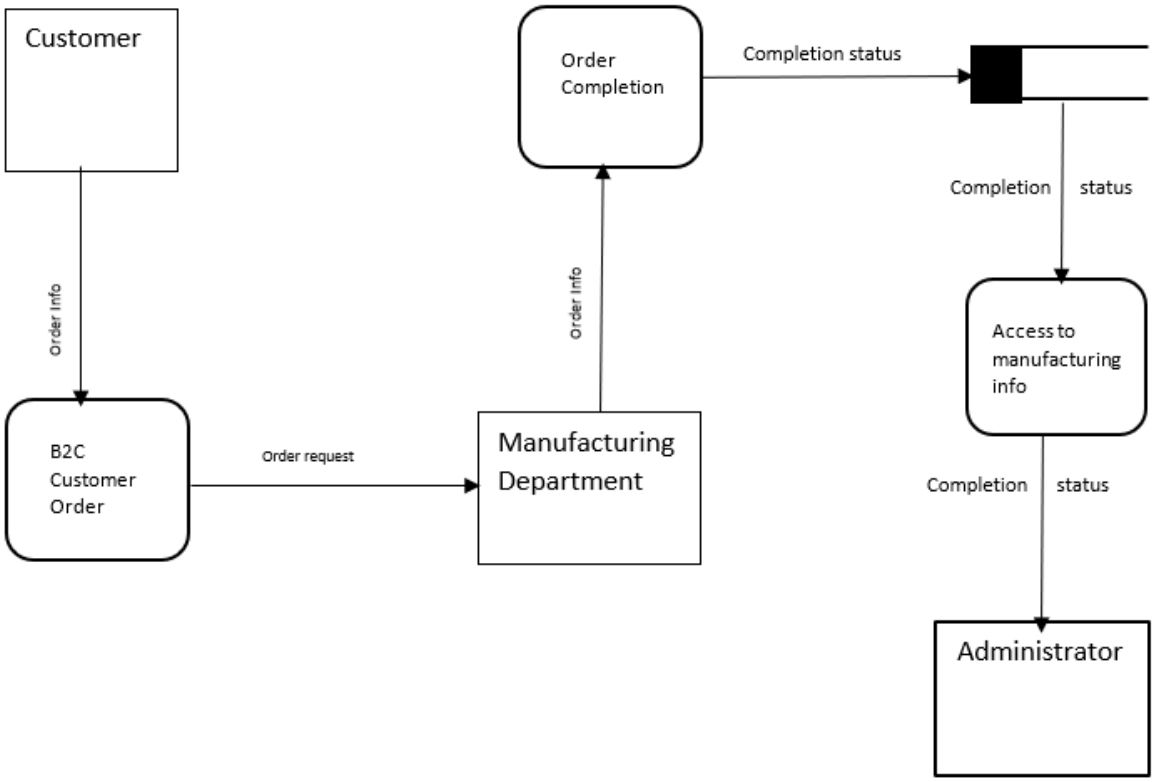


XIII. Data Flow Diagram:

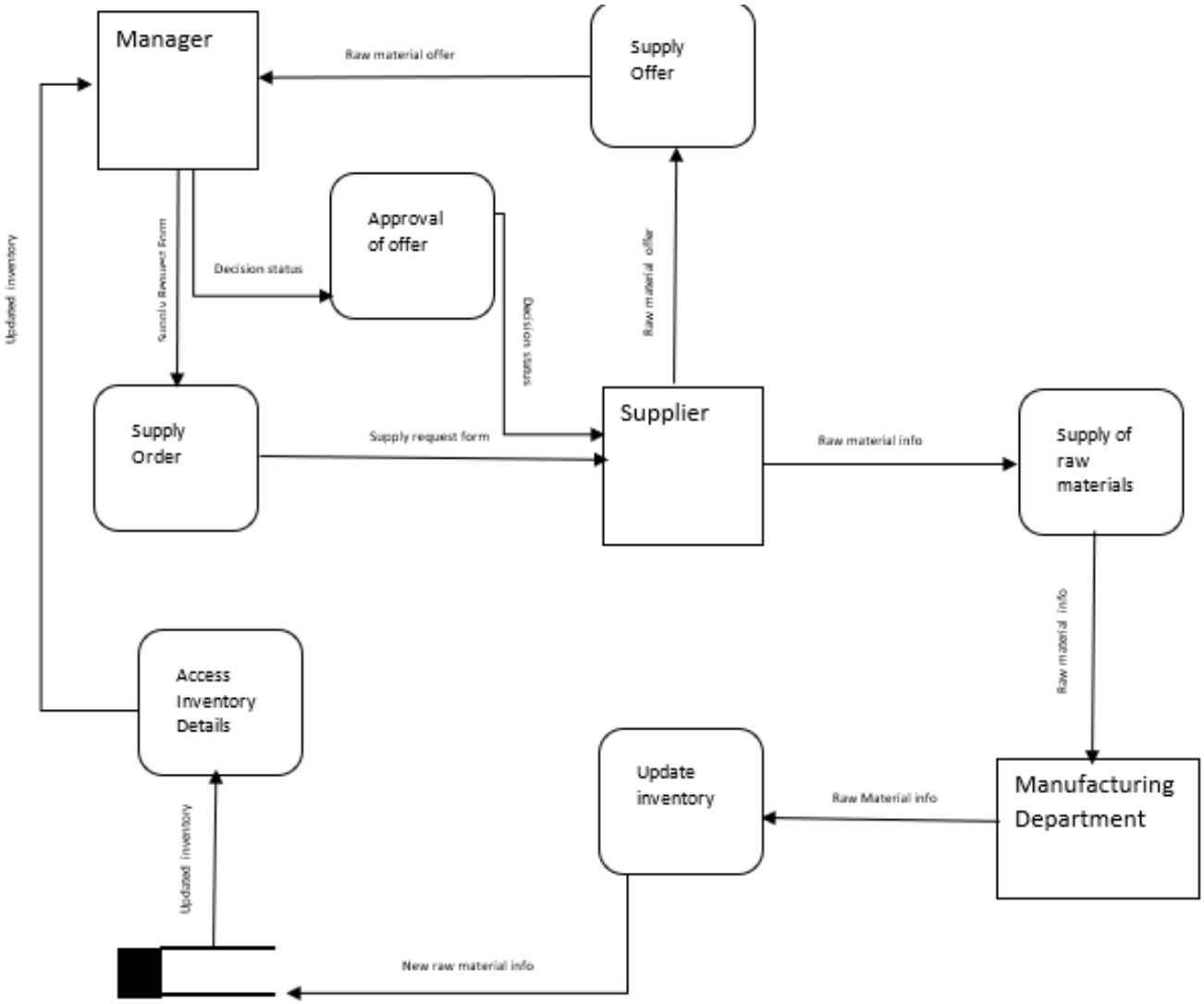
DFD- B2B Subsystem:



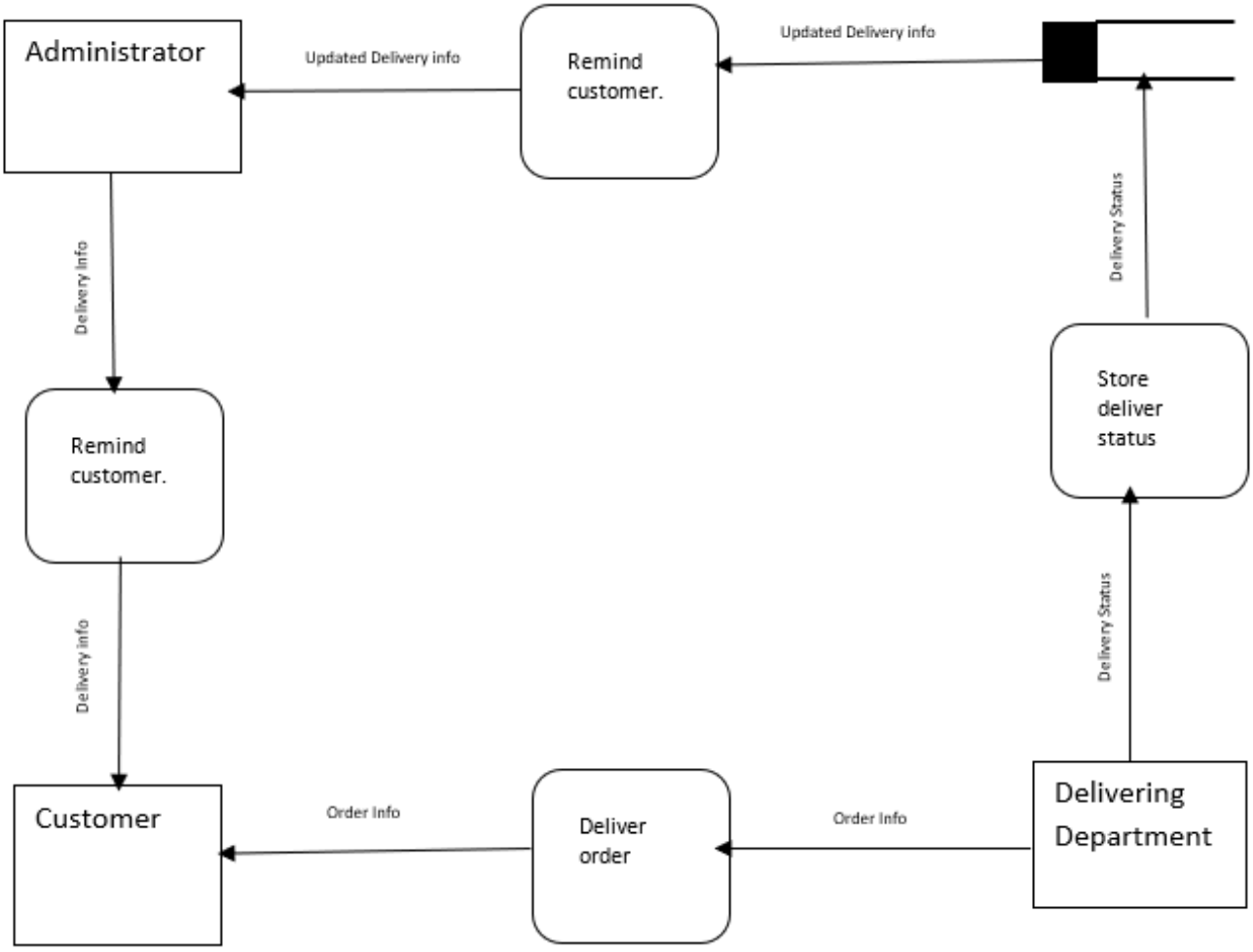
DFD B2C Subsystem:



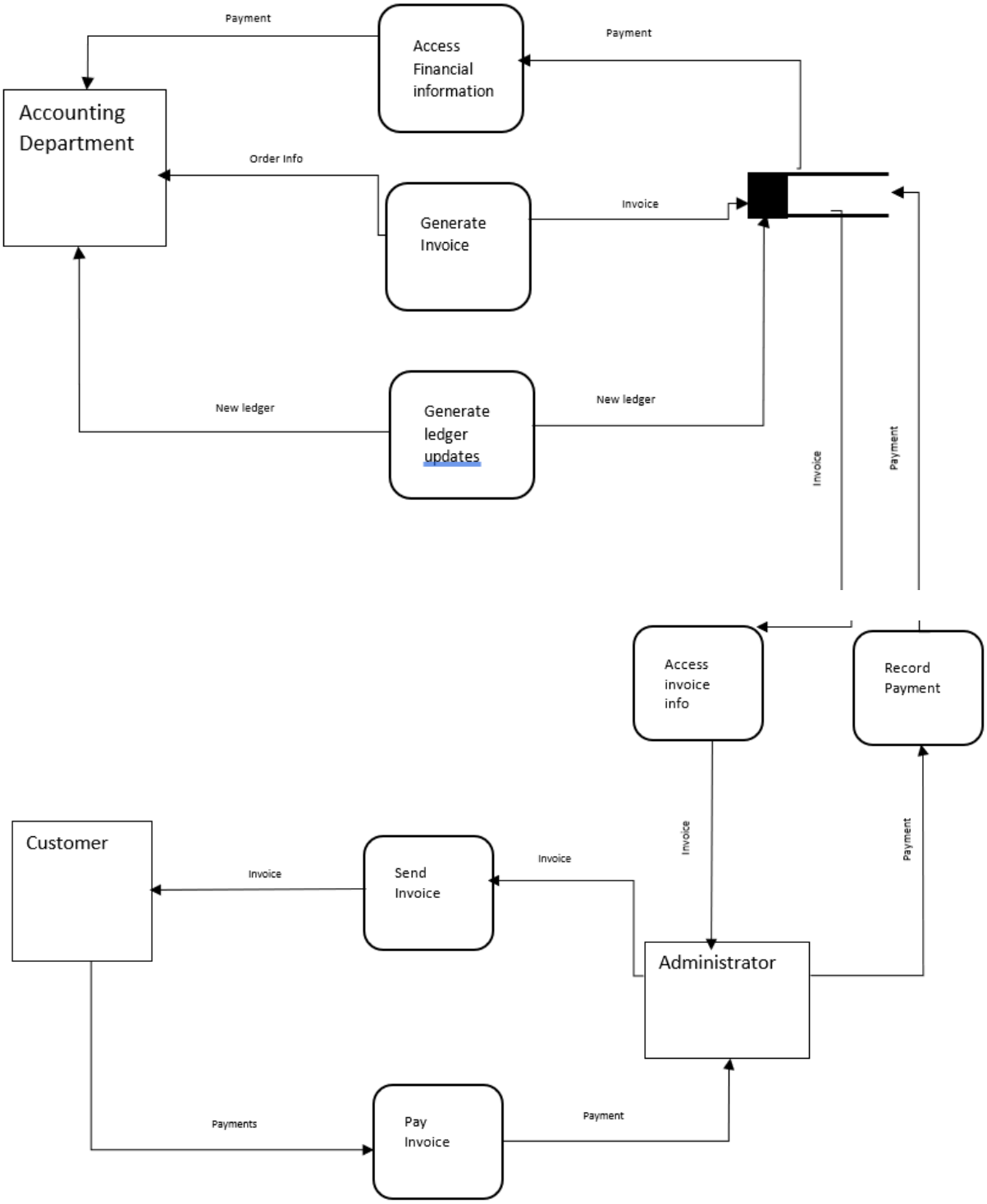
DFD Supply Subsystem:



DFD Delivery Subsystem:



DFD Accounting Subsystem:



XIV. Structured English and Data Structure:

Structured English:

1- Validating order request:

The manager evaluates the B2B order request:

If customer info is valid

and chocolate amount is sufficient for B2B request.

and delivery expectations are reasonable.

Then, the order request is valid.

Else, the order request is not valid.

2- B2B order request:

The customer fills out the B2B order request:

If customer includes address:

And chocolate specification

And contact information

And delivery expectation

Then, the order is submitted.

Else, the order is deemed missing and cannot be submitted.

3- Production Completion:

The manufacturing department produce chocolate:

If the full required amount of chocolate is produced

And the chocolate was inspected.

And the chocolate was packaged.

Then, the completion request is sent by the manufacturing department.

Else, the order is deemed as not complete, and the completion request cannot be sent.

4- Supply order:

The manager fills out a supply order request:

If inventory is low

And orders are pending.

Then, the manager sends a supply order request to suppliers.

Else, a supply order request is not needed.

5- supply offer validation:

The manager receives the supply offer from suppliers:

If supply offer conforms to the supply order request

And the delivery specifications are acceptable.

And the price of goods is reasonable.

Then, the supply offer is validated by the manager.

Else, the supply offer is not validated by the manager.

6- update inventory:

The manufacturing department is responsible for updating inventory:

If manufacturing department receives new inventory

Or manufacturing department depletes inventory.

Then, the inventory is updated.

Else, the inventory should not be updated.

7- Deliver order:

The delivery department is responsible for delivering the chocolate:

If the delivery department receives the order

And the order conforms to the order request sent by customer.

Then, the delivery department delivers the chocolate.

Else, the delivery department notifies the manufacturing department about potential errors.

8- generate invoice:

The accounting department is responsible for generating invoices:

If customer order has been validated by the manager

Then invoice is generated for the order

Else, the order is completely dismissed.

9- send invoice:

The administrator is responsible for sending the invoice:

If the invoice has been created by the accounting department

And the order has been completed by the manufacturing department.

And the order is ready to be delivered.

Then, the administrator sends the invoice to the delivery department.

Else, the invoice is pending at the administrator.

10- record payment:

The administrator is responsible for recording payments:

If the customer has paid the invoice

Then, the administrator records that payment.

Else, the payment is pending for that customer.

11- Generate ledger updates:

The accounting department is responsible for generating ledger updates:

If the any payments were recorded by the administrator

Or the manager has completed an order supply request.

Then, the accounting department should update account ledgers.

Else, account ledgers should not be updated.

Data Structure:

CUSTOMER INFORMATION=

CLIENT NAME + CLIENT NUMBER +

PHONE NUMBER + [PERSONAL EMAIL,

COPORATE EMAIL] +

SHIPPING ADDRESS=ADDRESS+

(BILLING ADDRESS=ADDRESS)

(BILLING ADDRESS=ADDRESS) +

ORDER DISCRIPTION + CUSTOMER PHONE

NUMBER + CUSTOMER NAME +

[CURRENCY IN LBP,

CURRENCY IN USD]

ORDER REQUEST=

ORDER DISCRIPTION + QUANTITY +

CLIENT INFORMATION +

DATE OF REQUEST + DATE OF DELIVERY

PRODUCTION ORDER COMPLETION STATUS=

ORDER DISCRIPTION + QUANTITY +

DATE OF PRODUCTION + PRODUCTION DURATION

+ DATE OF EXPIRATION + [STATUS COMPLETE,

STATUS IN PROGRESS] +

NAME OF PRODUCTION WORKER

IN CHARGE

DELIVERY INFORMATION=

SHIPMENT DISCRIPTION+

NAME OF DRIVER +

DRIVER PHONE NUMBER + COST

OF DELIVERING GOODS +

DATE OF SHIPMENT +

(SHIPPING ADDRESS=ADDRESS)

SUPPLY REQUEST FORM=

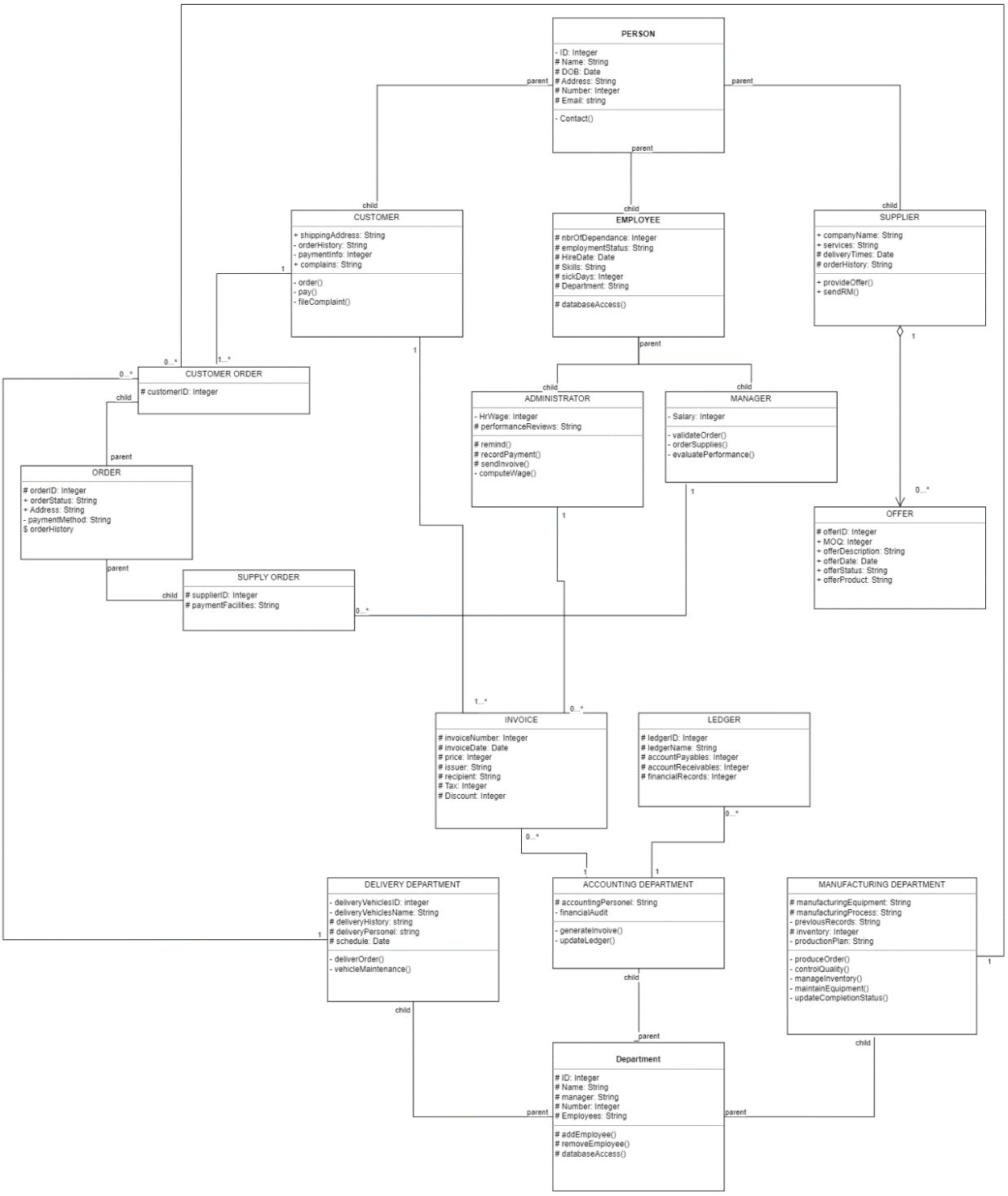
ORDER INFORMATION + QUANTITY NEEDED

+ SUPPLIER INFORMATION + COST OF RAW MATERIAL

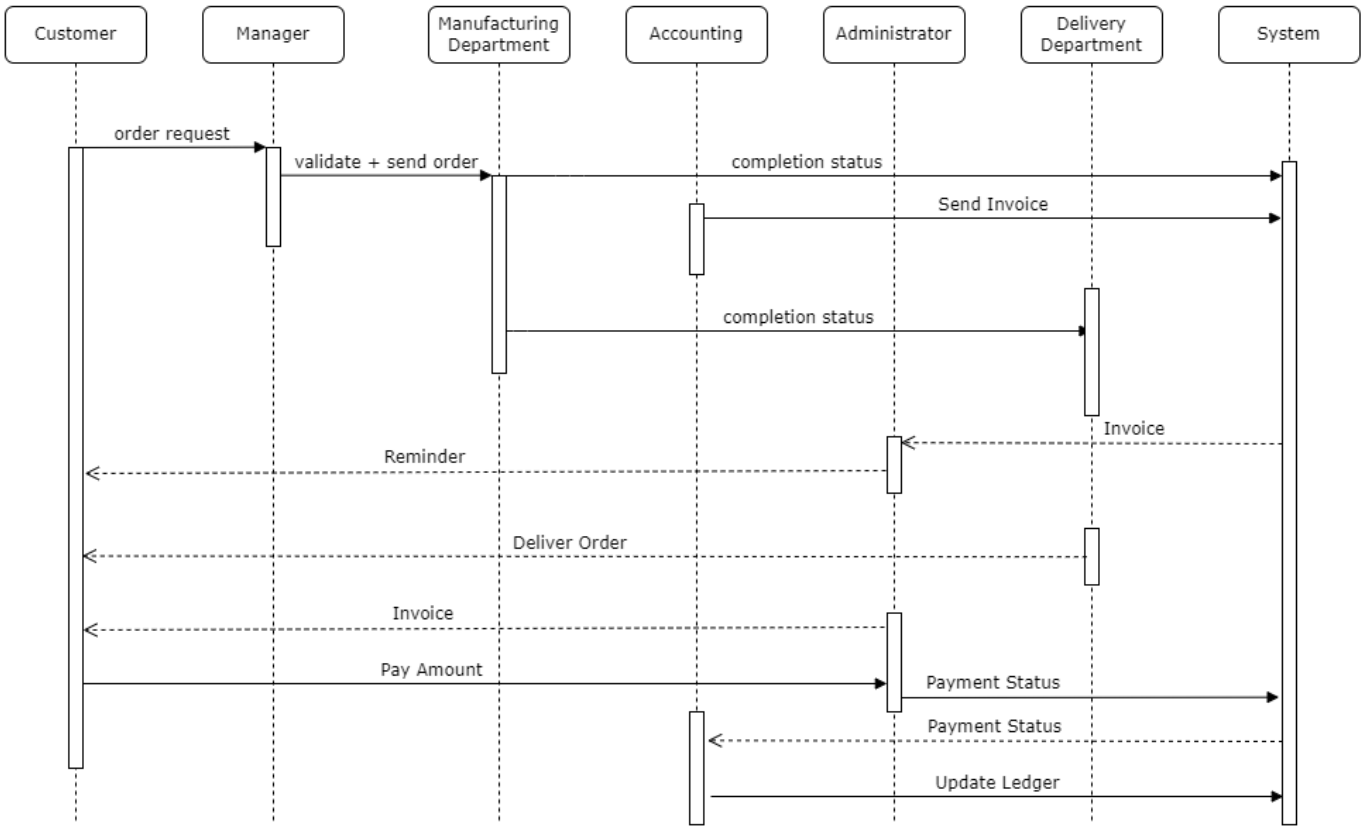
+ [CURRENCY IN LBP,

CURRENCY IN USD]

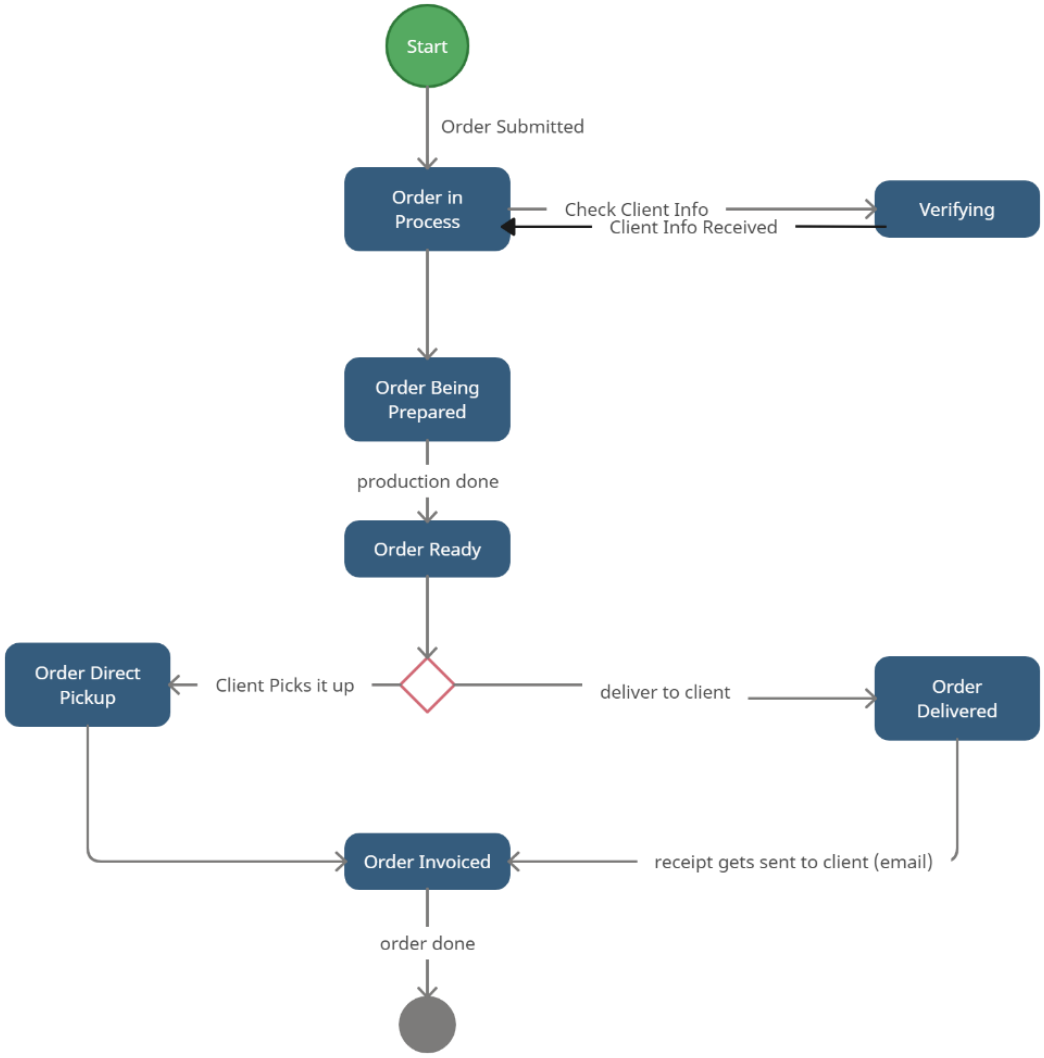
XV. Class Diagram



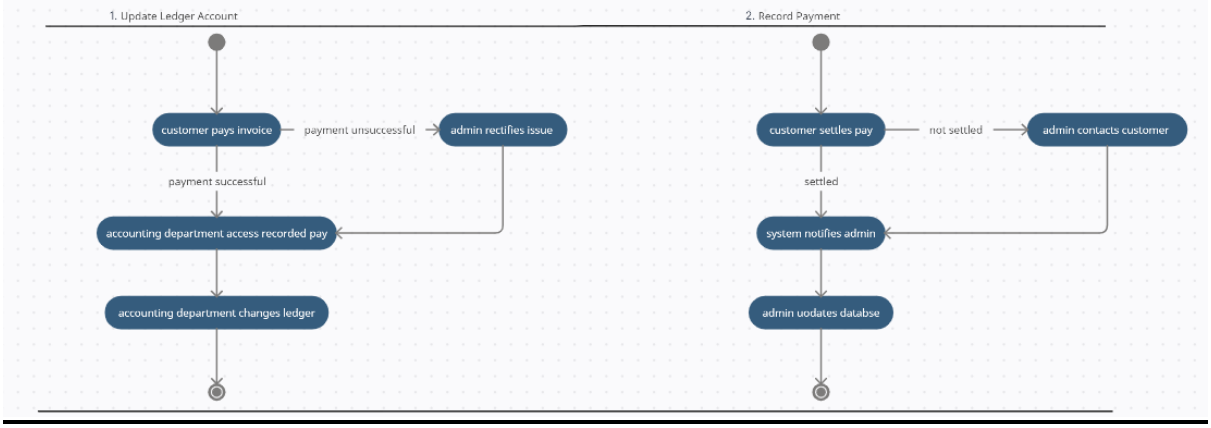
XVI. Sequence Diagram:

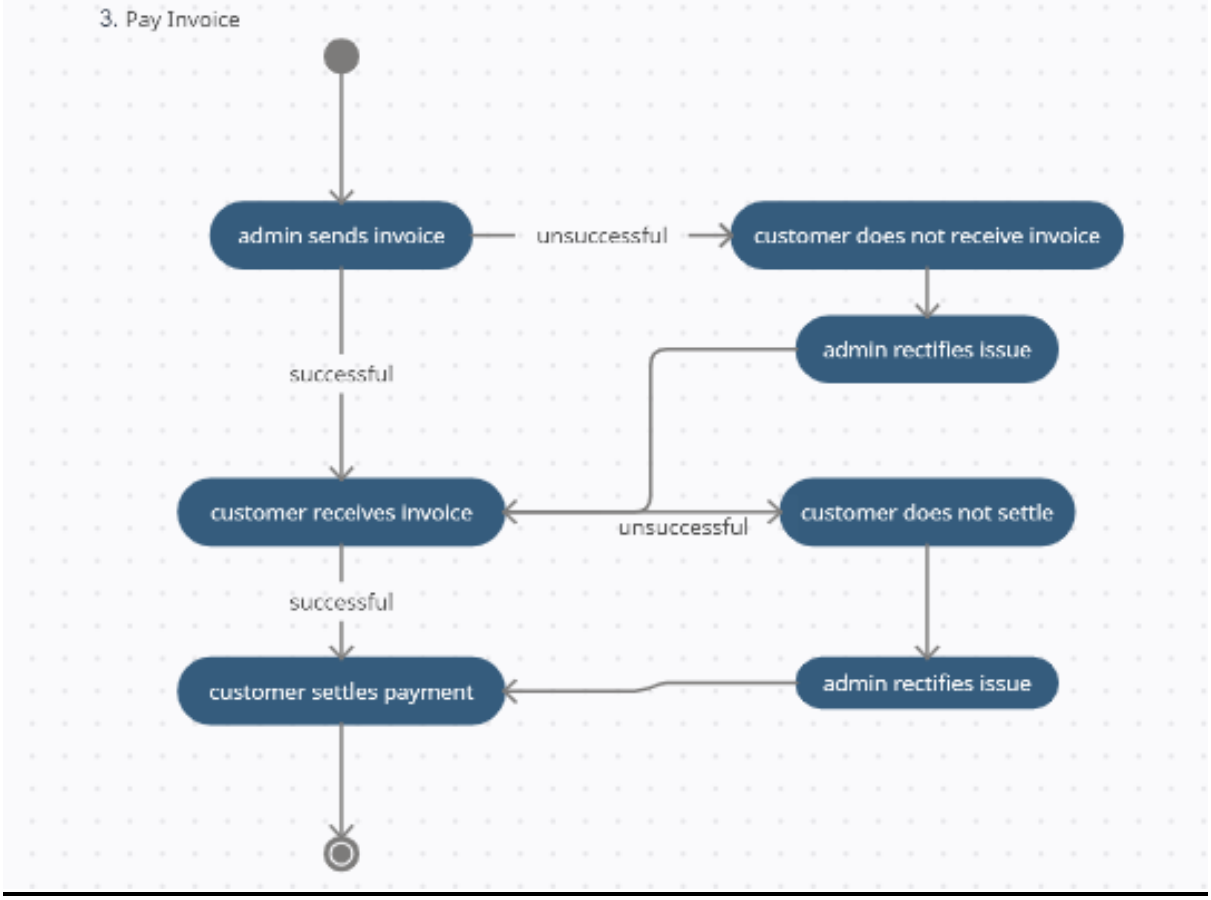


XVII. State-chart Diagram:



XVIII. Activity Diagram:





XIX. Project Progress Report:

The team assigned tasks to each member, ensuring that everyone agreed to the parts assigned to them. However, some of the work was done collaboratively by team members.

Distributed Tasks:

Jessica:

- Company Overview, Purpose
- System Functions
- Non-functional Requirements
- State Diagram
- System Limitations

Romanos:

- Interview questions
- Interview Report 1
- Use-case narratives
- Data Flow Diagram
- Class Diagram
- Structured English

Lara:

- Interview Report 2
- Functional Requirements
- Use-case Diagram
- Context Diagram
- Decomposition Diagram
- Sequence Diagram
- Data Structure

Rachid:

- Scope
- Overview
- Activity Diagram

Teamwork:

- Interviews (Romanos and Lara)
- Context Diagram (Romanos and Lara)
- Overall use-case diagram (Romanos and Lara)
- Use Case Narratives (all the team)