

Systems Analysis and Design Lesson Project

Project Subject: Online Store

Producer: Amir Mohammad Rezvaninia

Course code: 2503

First phase

Shopping Subsystem

(OLD)

Questionnaire on the strengths and weaknesses of the online store system

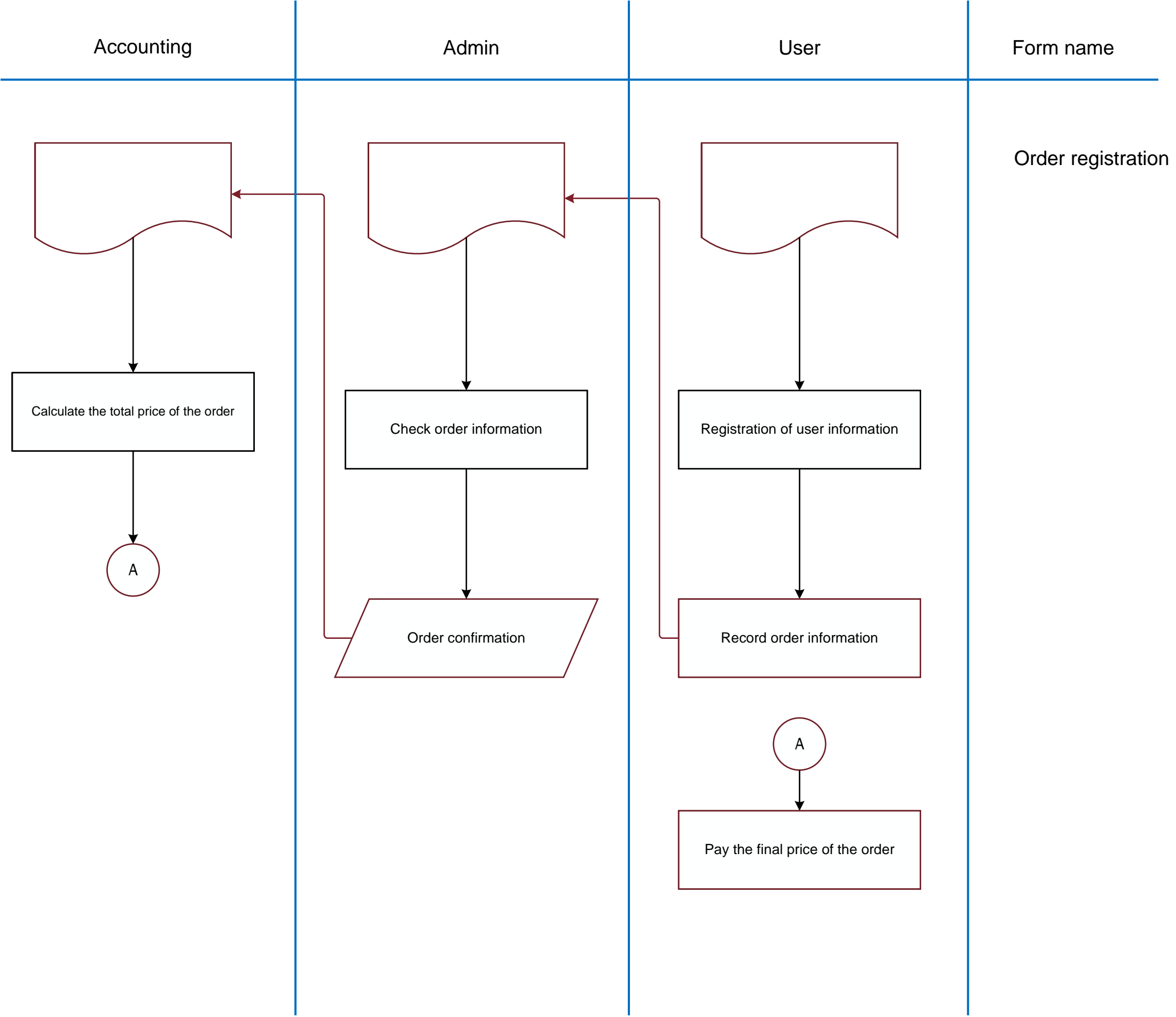
Subsystem: Purchase

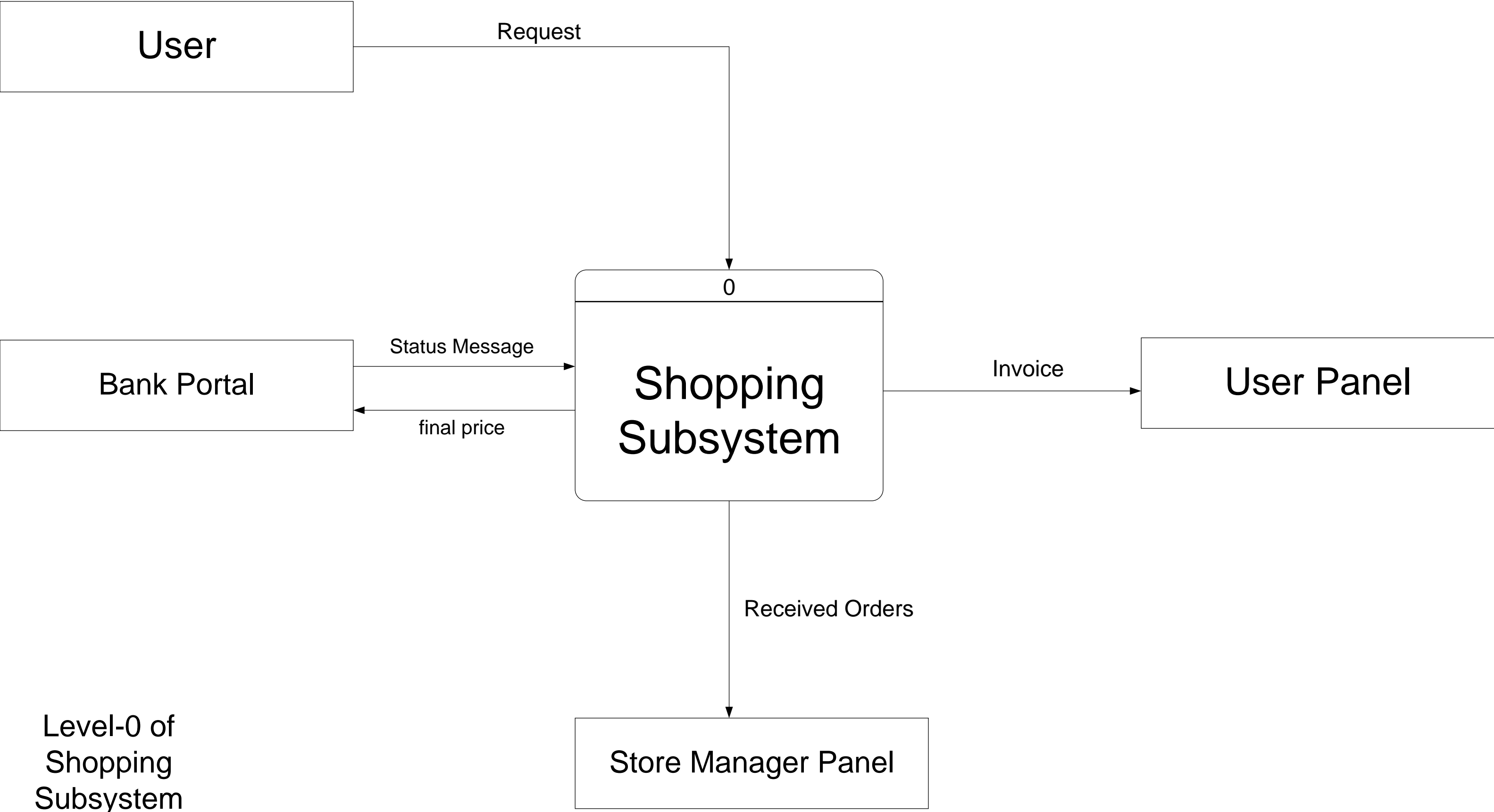
User: Store Manager

- | | | |
|--|-----|----|
| 1 - Is the user logged in to the user panel through the API? | Yes | No |
| 2 - Is the order invoice available in the user panel, the user? | Yes | No |
| 3 - How is the information confirmed by the user after registering on the website? | | |

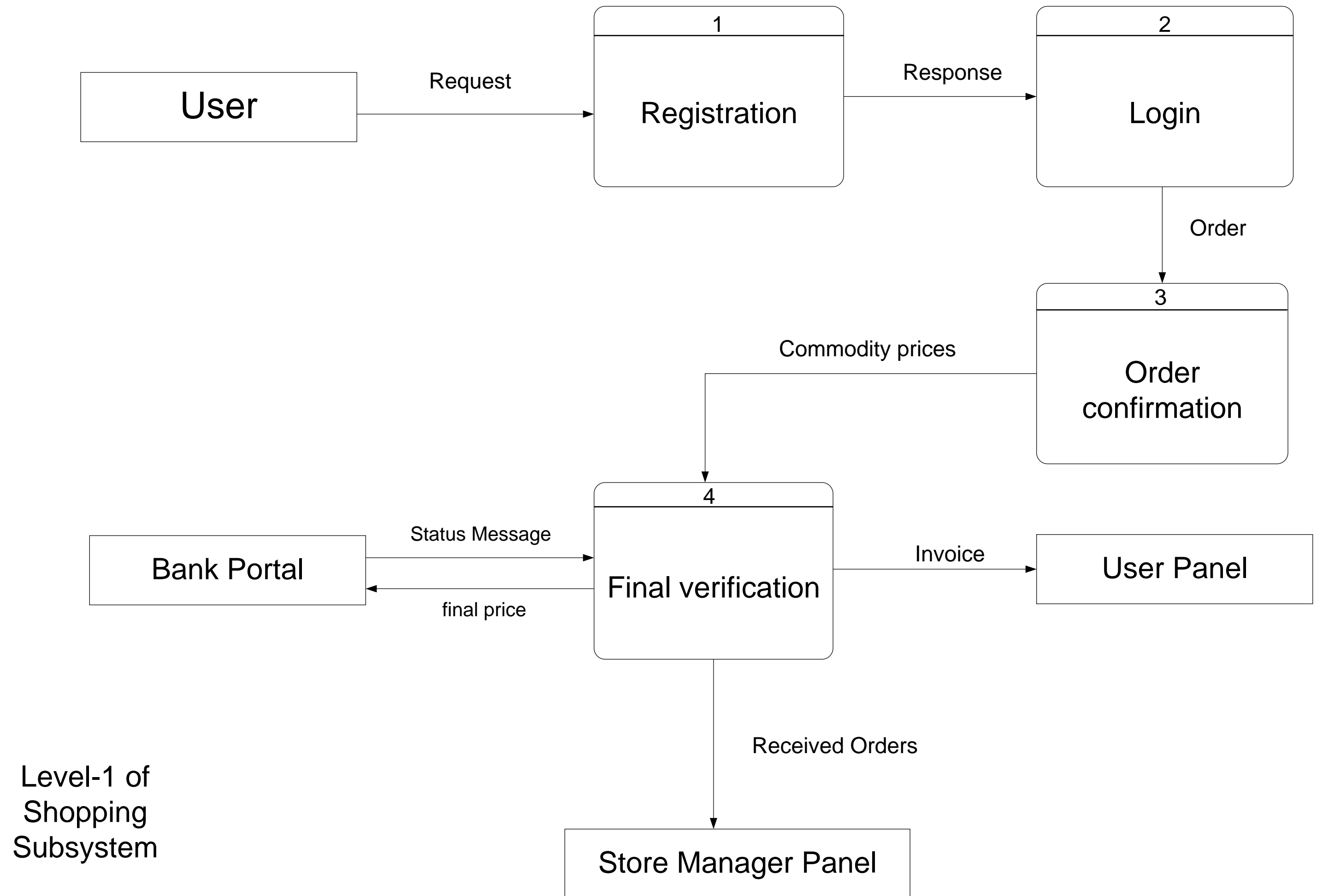
SMS Email

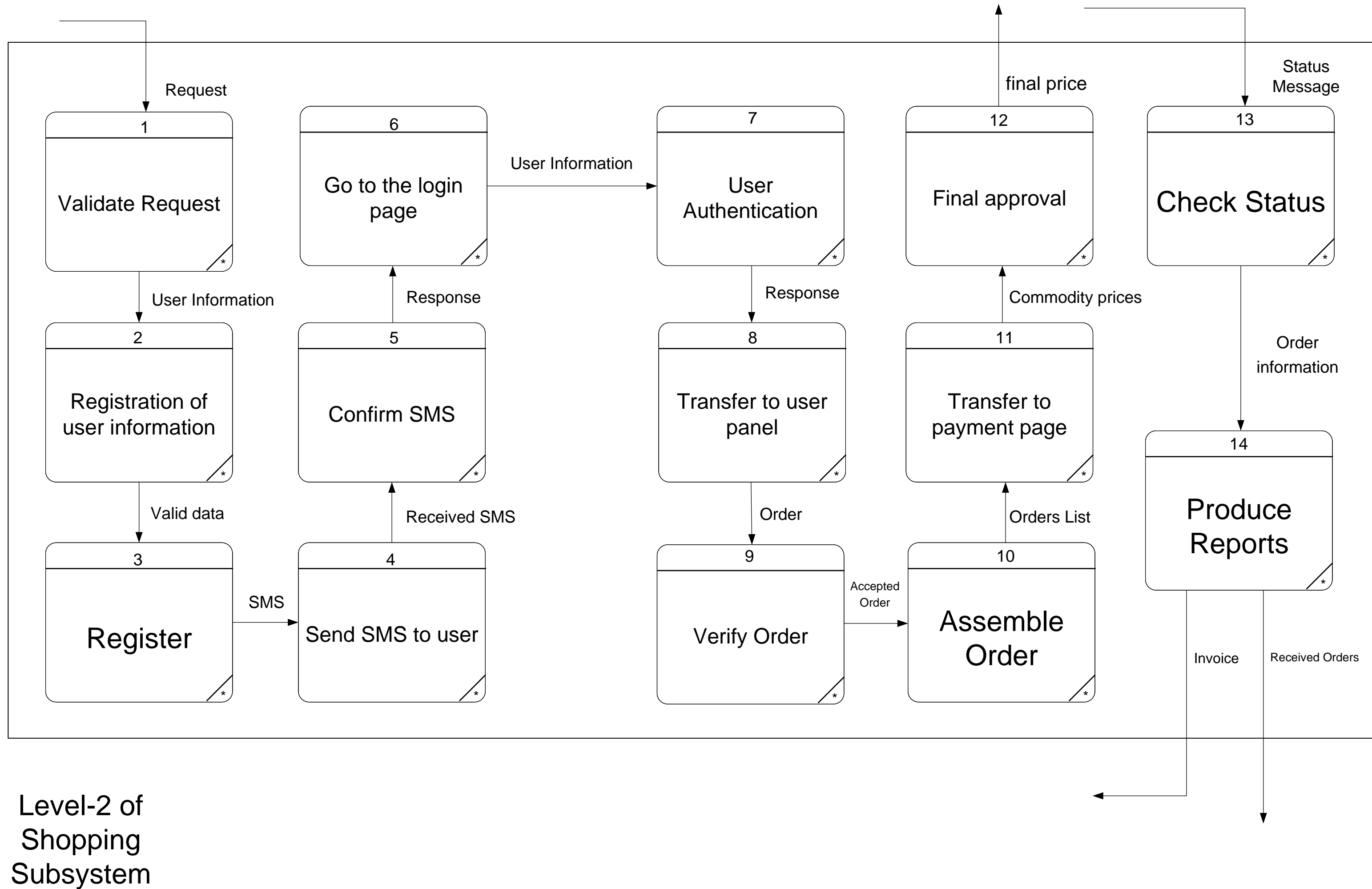
Date and signature





Level-0 of
Shopping
Subsystem





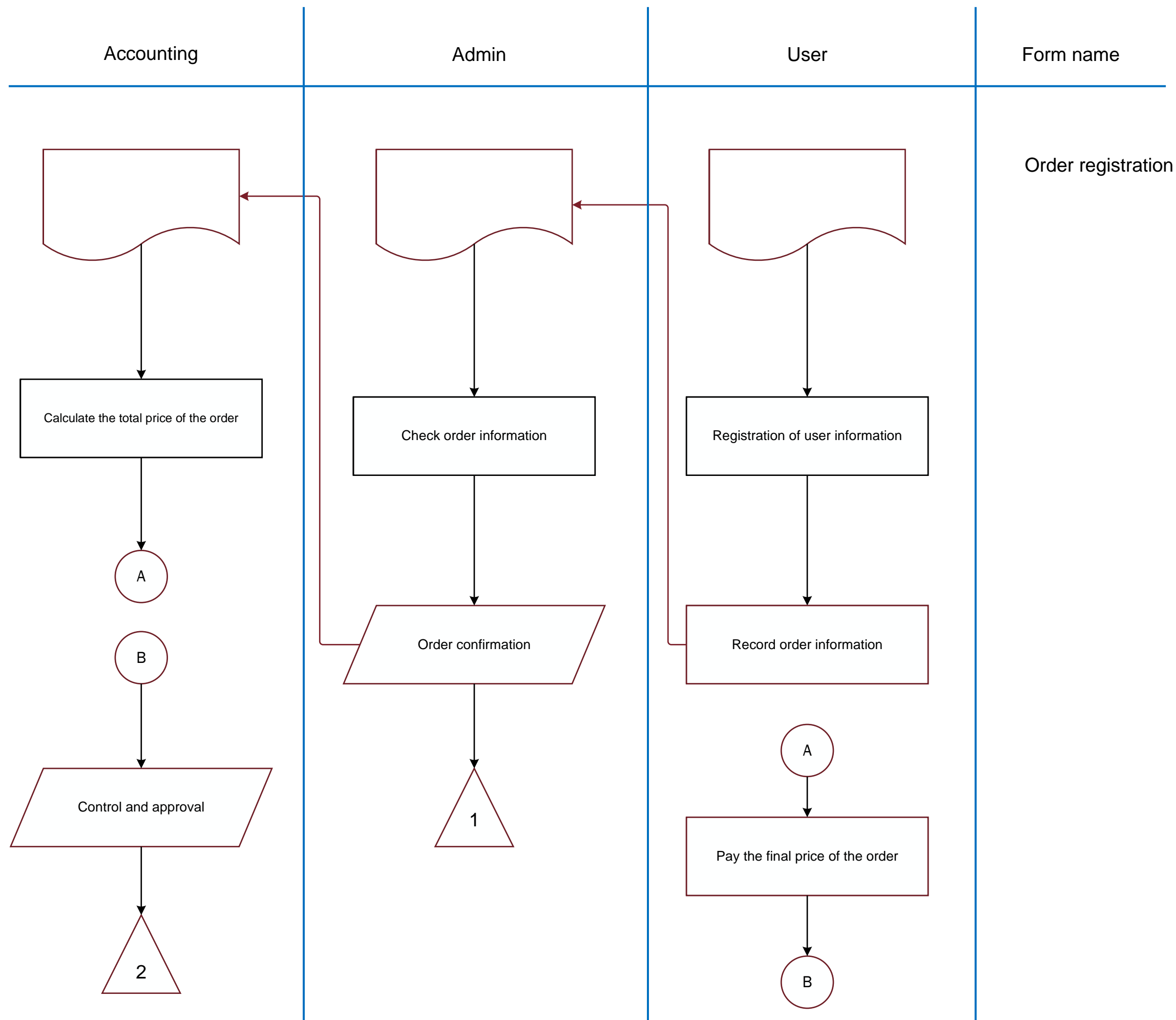
Conclusion of the first phase

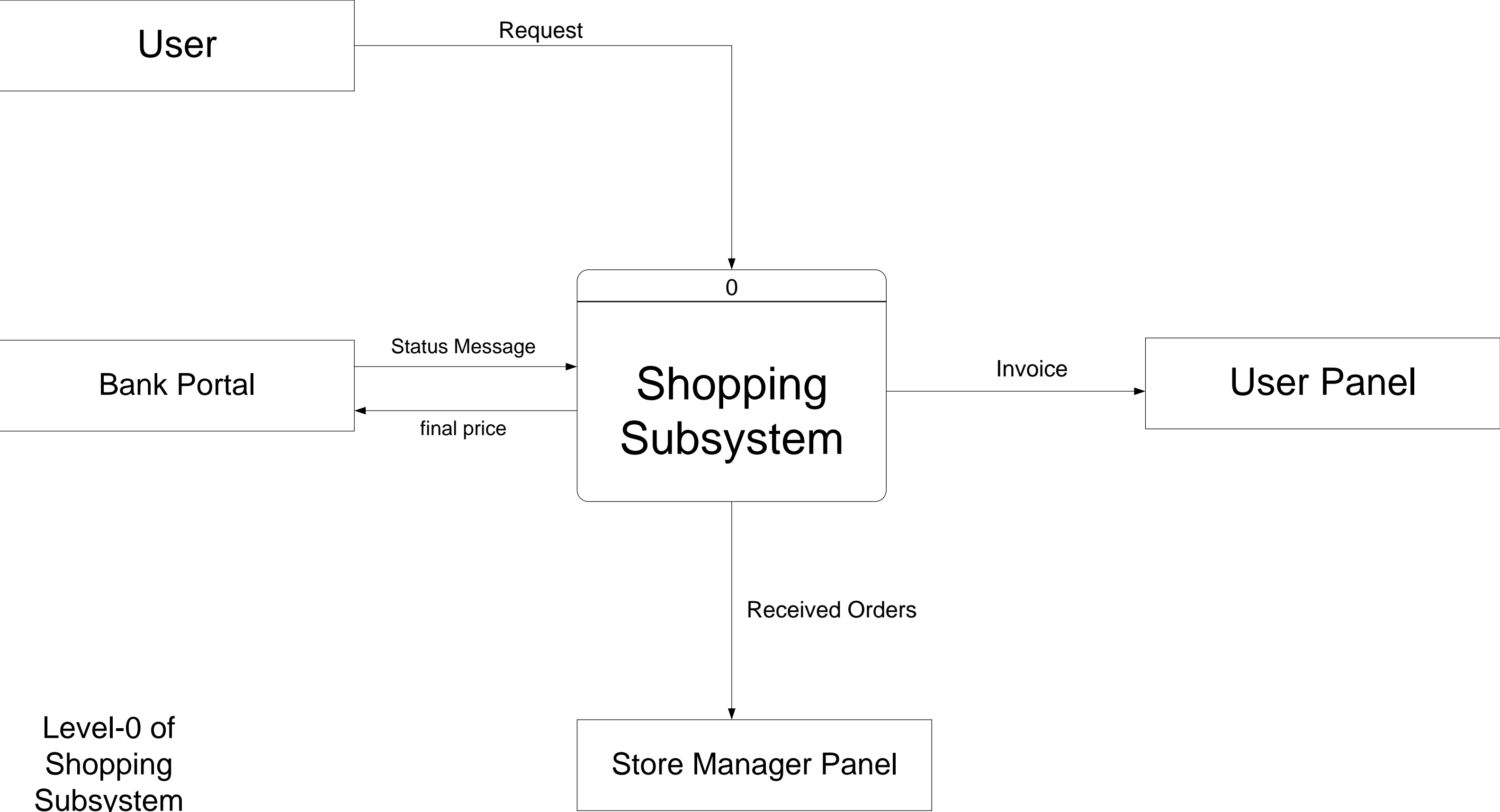
In the online store system in the login section of the user panel, users had to use the store login system to log in after registering on the site, which caused a lot of time and, more importantly, made users' information insecure and caused problems. It was like SQL Injection. Also, in the registration section, a text message was sent to the users' mobile phones to confirm the information by the users, which also caused problems such as others abusing the phone number.

The second phase

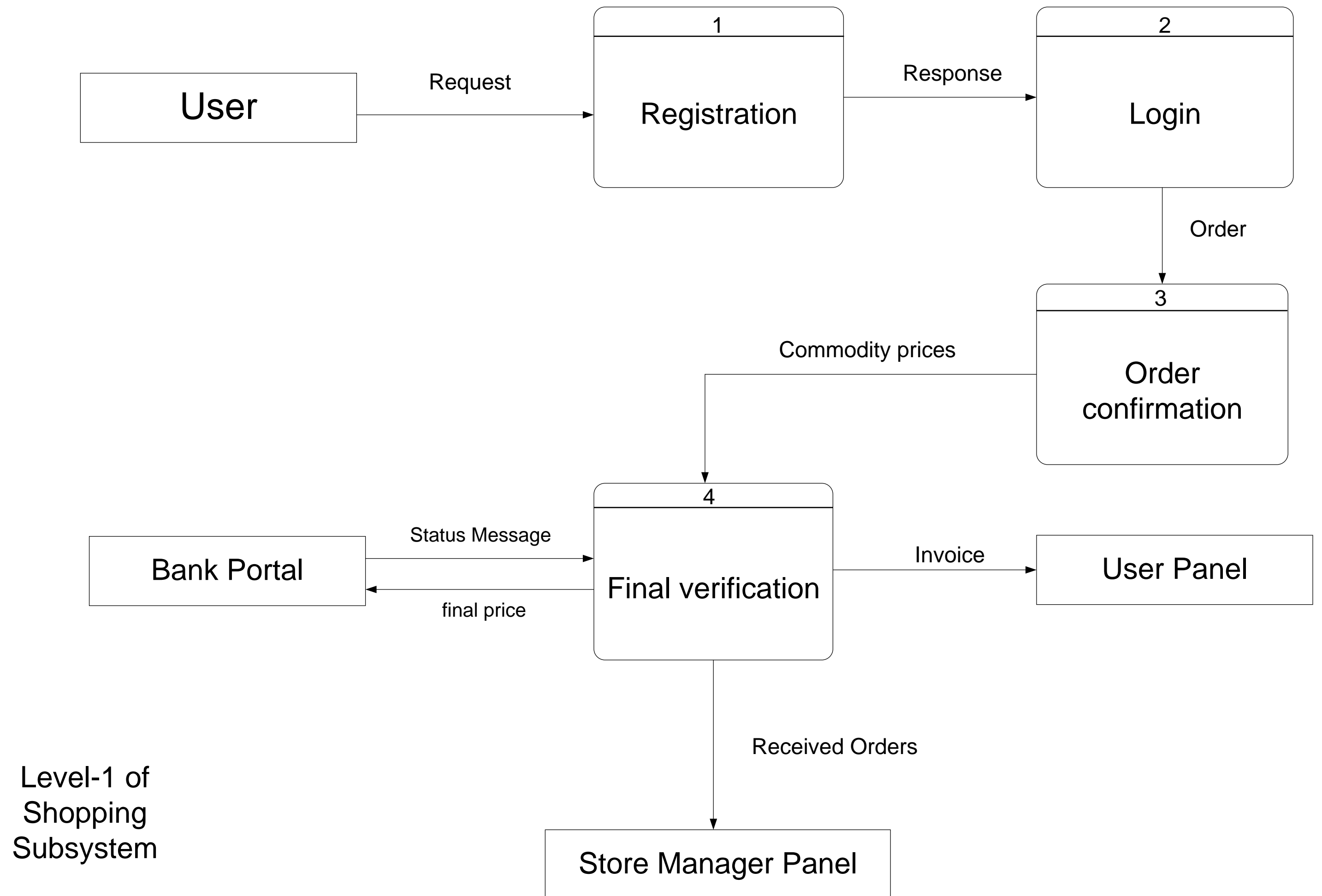
Shopping Subsystem

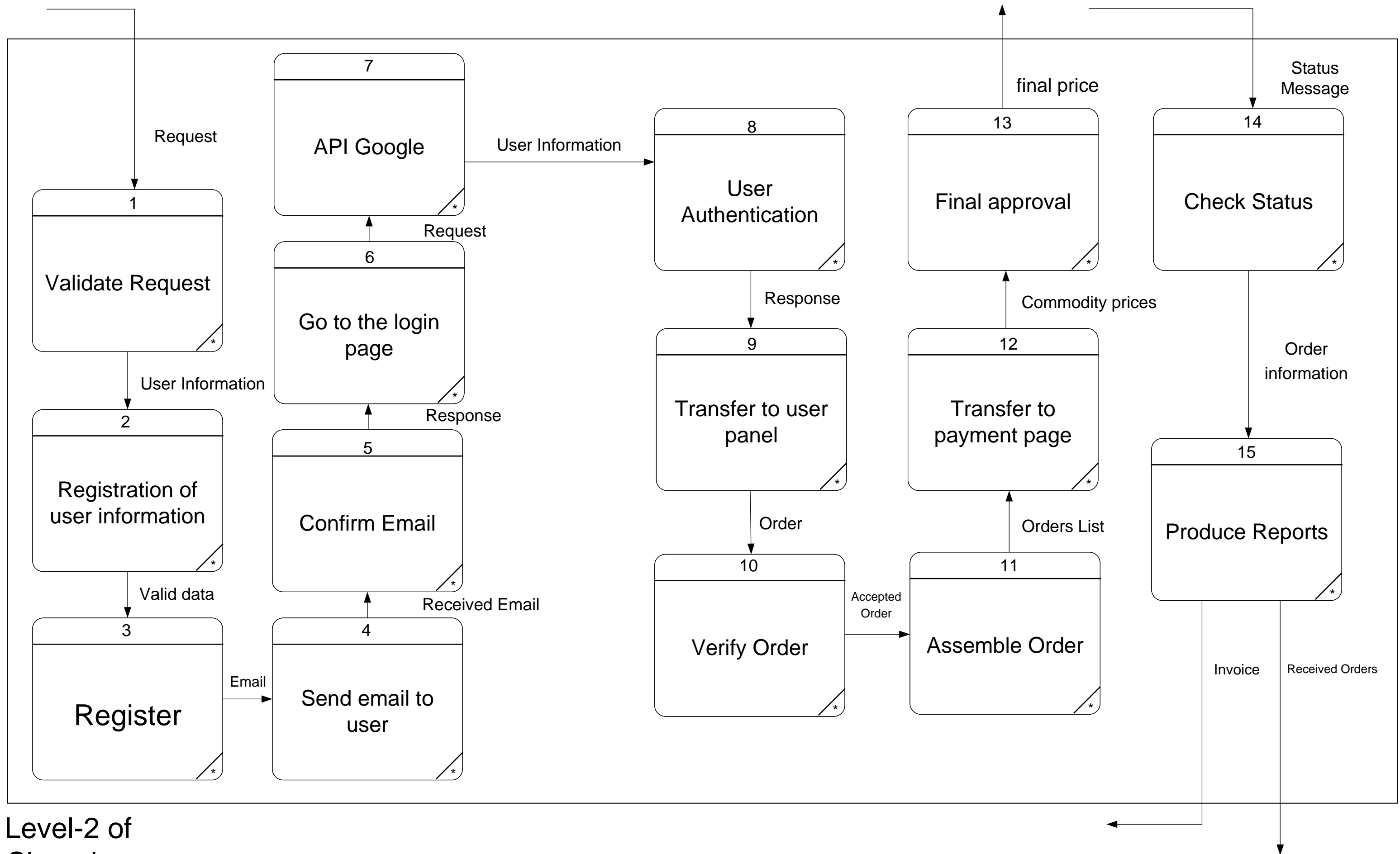
(NEW)





Level-0 of
Shopping
Subsystem





Level-2 of
Shopping
Subsystem

P.S

Process name: Validate Request

Processing number: 1

Processing Description: The request is valid in terms of security to prevent bots

P.S

Process name: Confirm Email

Processing number: 5

Processing Description: Confirm email by user

P.S

Process name: Transfer to user panel

Processing number: 9

Processing Description: Transfer to user panel

P.S

Process name: Registration of user information

Processing number: 2

Processing Description: User information includes last name, mobile phone Register the system.

P.S

Process name: Go to the login page

Processing number: 6

Processing Description: Go to the login page

P.S

Process name: Verify Order

Processing number: 10

Processing Description: verify user orders

P.S

Process name: Register

Processing number: 3

Processing Description: User information includes last name, mobile phone Register the system.

P.S

Process name: API Google

Processing number: 7

Processing Description: Use to API Google for login

P.S

Process name: Assemble Order

Processing number: 11

Processing Description: List of all approved orders

P.S

Process name: Send email to user

Processing number: 4

Processing Description: Send email to user

P.S

Process name: User Authentication

Processing number: 8

Processing Description : Check user information

P.S

Process name: Transfer to payment page

Processing number: 12

Processing Description: Transfer to payment page

P.S

Process name: Check Status

Processing number: 14

Processing Description: Check payment status

P.S

Process name: Produce Reports

Processing number: 15

Processing Description: Generate invoices

D.F.D.E

Data Flow Name: User Information

Data Flow Description: This information describes the user profile

From processing: Validate Request

To process: Registration of user information

Data Flow Structure: last name, mobile phone

P.D.E

Process name: Final approval

Processing number: 13

Processing Description: This processing is done to calculate the final price

input: Commodity prices

output: final price

Processing logic:

- 1) get price of commodity
- 2) final price = Total commodity prices
- 3) send final price to bank portal
- 4) halt

Calculate the control digit based on odd numbers

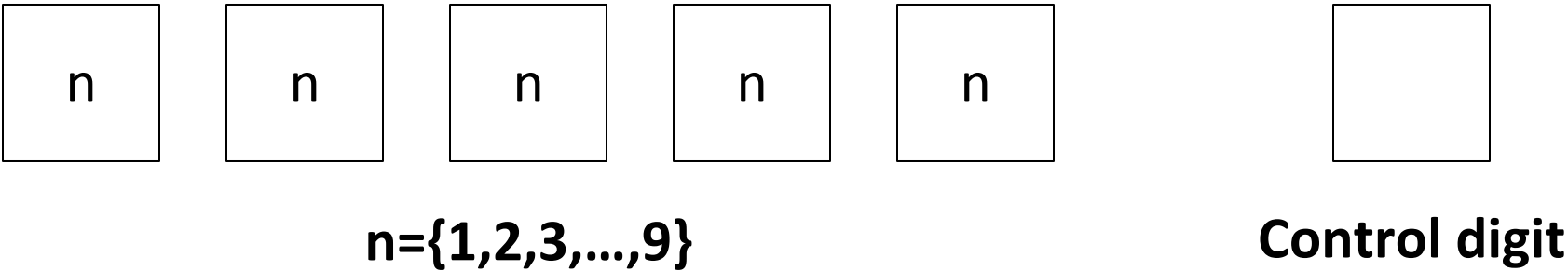
We have a custom code **5 and** 34567

3	4	5	6	7
×	×	×	×	×
9	7	5	3	1

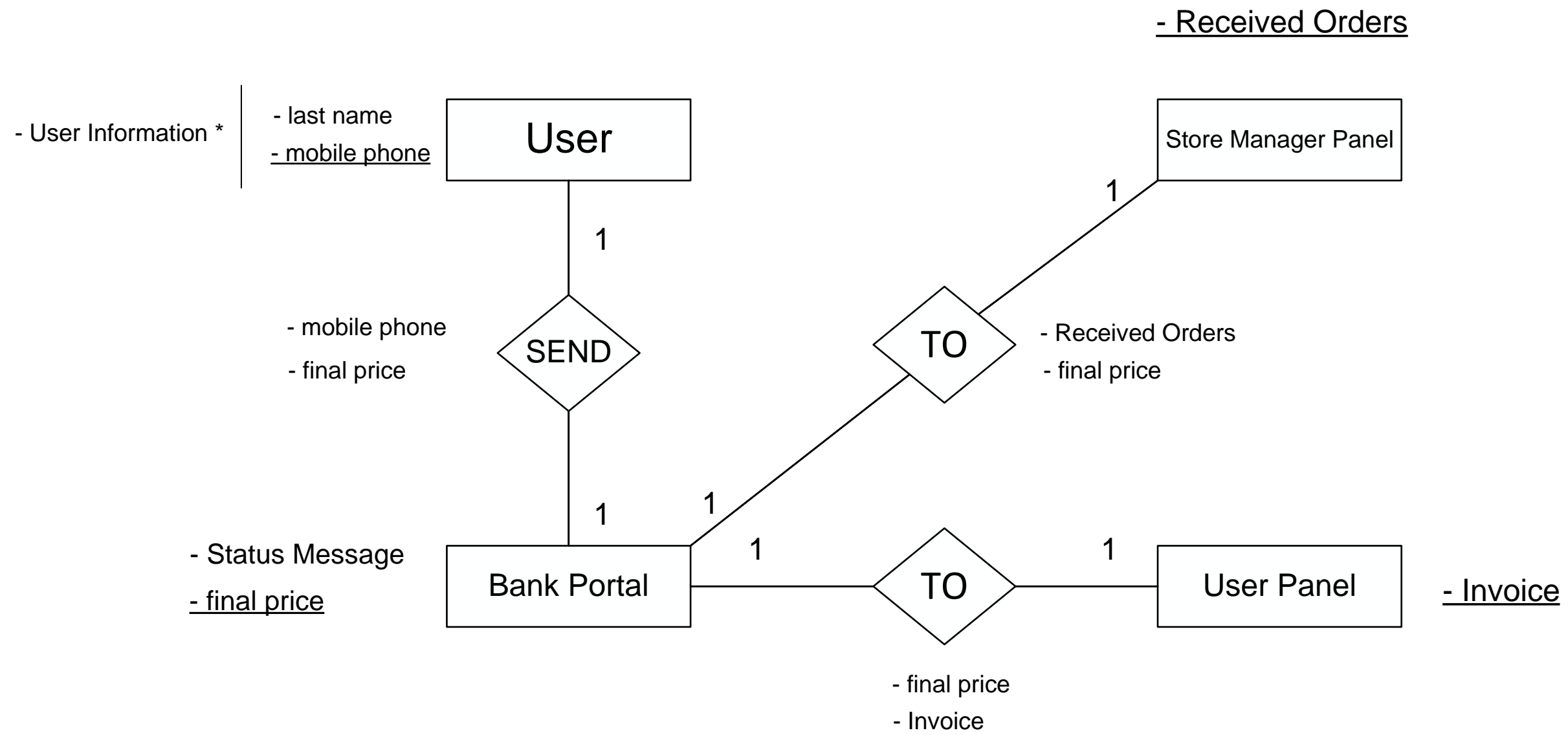
$27 + 28 + 25 + 18 + 7$

Now the resulting number must be subtracted from the first multiple of 11 equal to or greater than itself.

$110 - 105 = 5$



<div>Determining users' information needs</div> <div>Subsystem Name: Purchase</div> <div>User: Store Manager</div>						
Row	Duties	needed information	Source	How to receive	Receipt time	considerations
1	Check orders received	<div><div>- Order code</div><div>- Order details</div><div>- Amount paid</div></div>	Admin panel	Online	-	-



mobile phone	final price

final price	Received Orders

final price	Invoice

First phase

Sales Subsystem

(OLD)

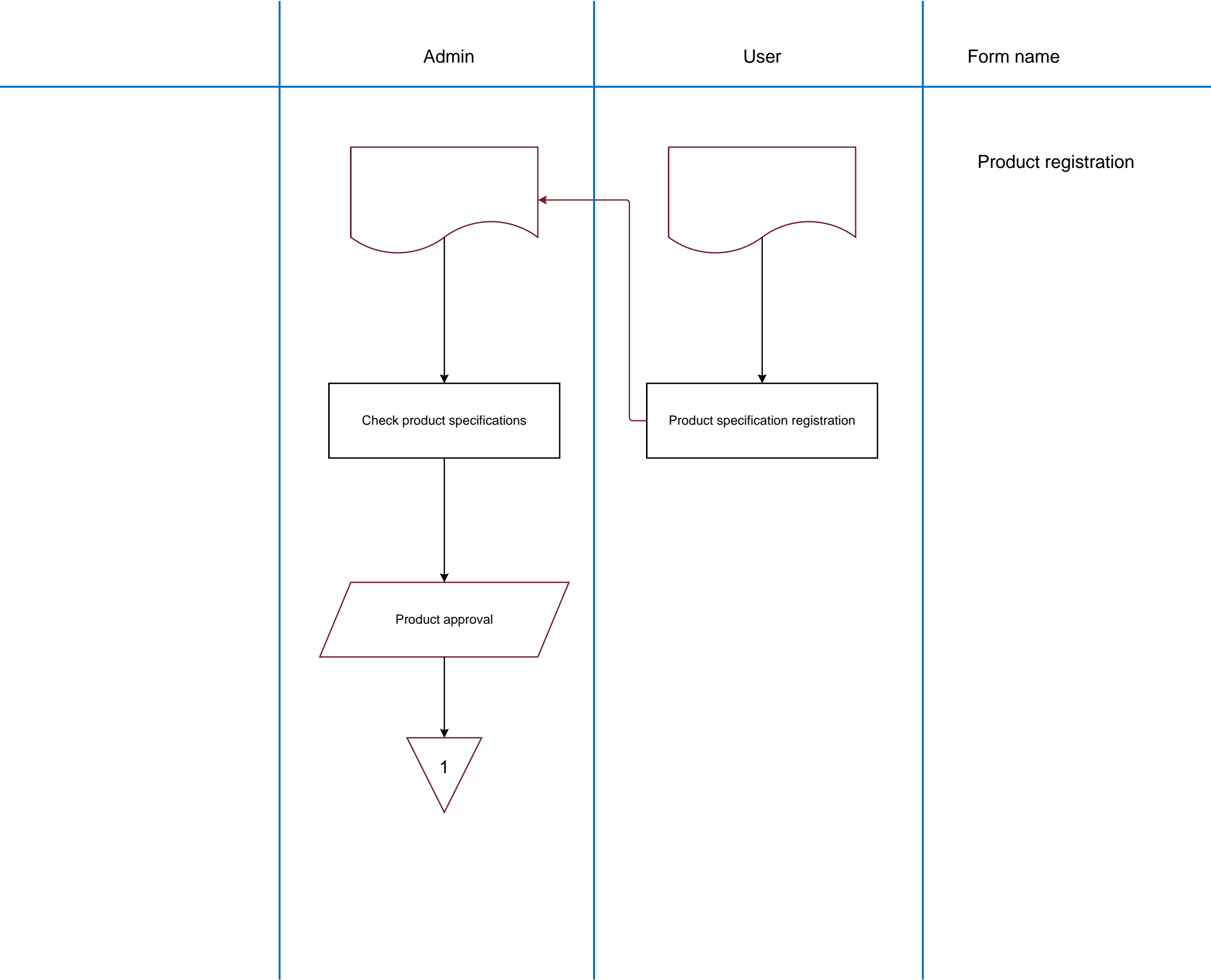
Questionnaire on the strengths and weaknesses of the online store system

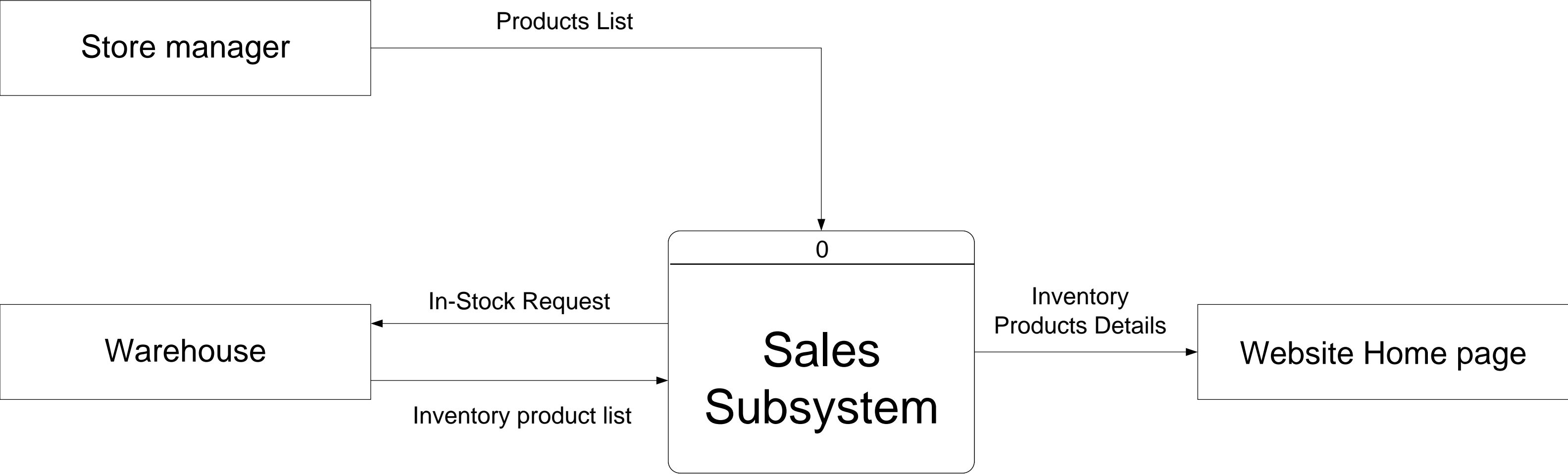
Subsystem: Sales

User: Store Manager

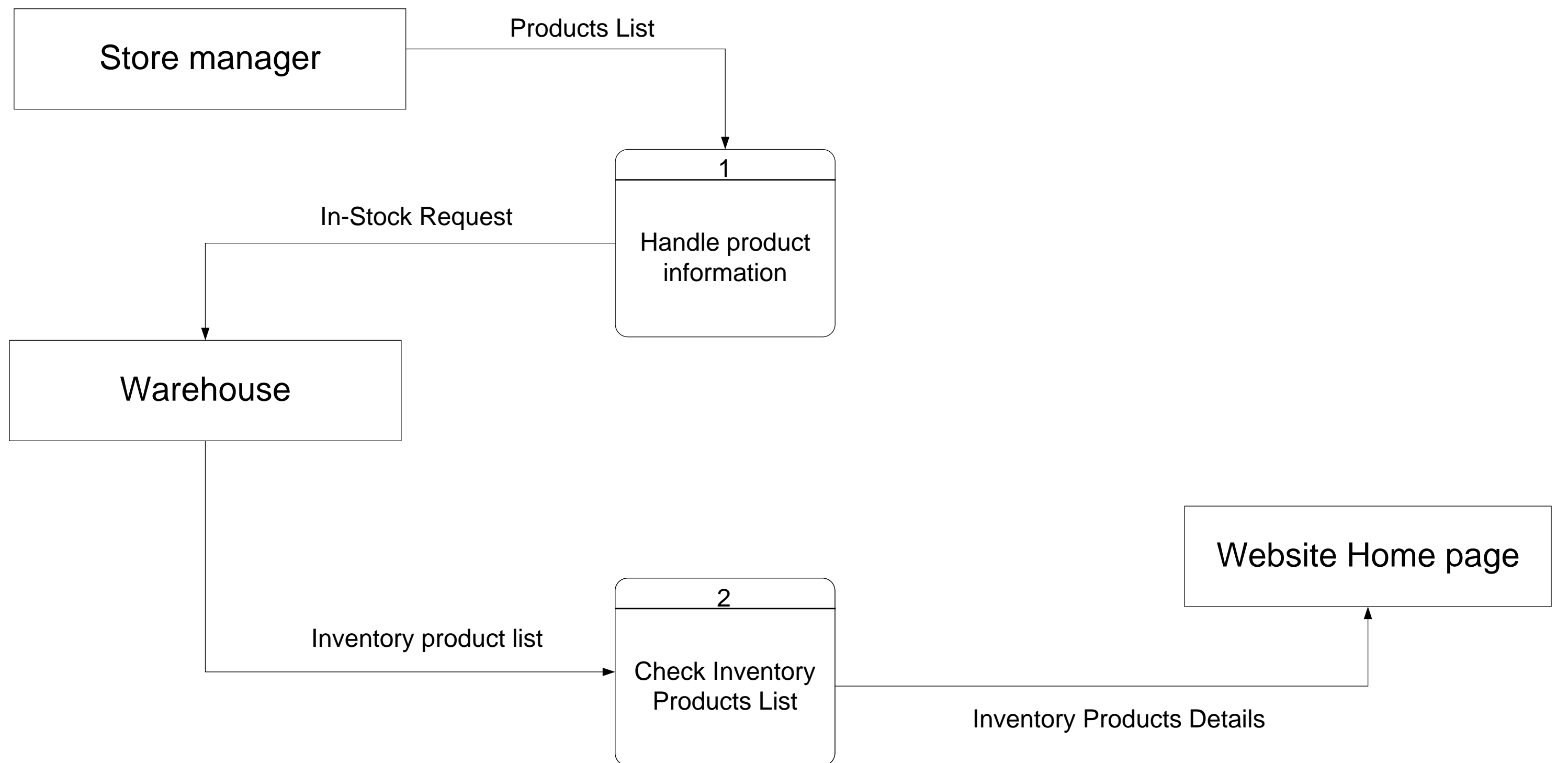
1- Are the details of the inventory products exactly on the main page of the website? Yes No

Date and signature

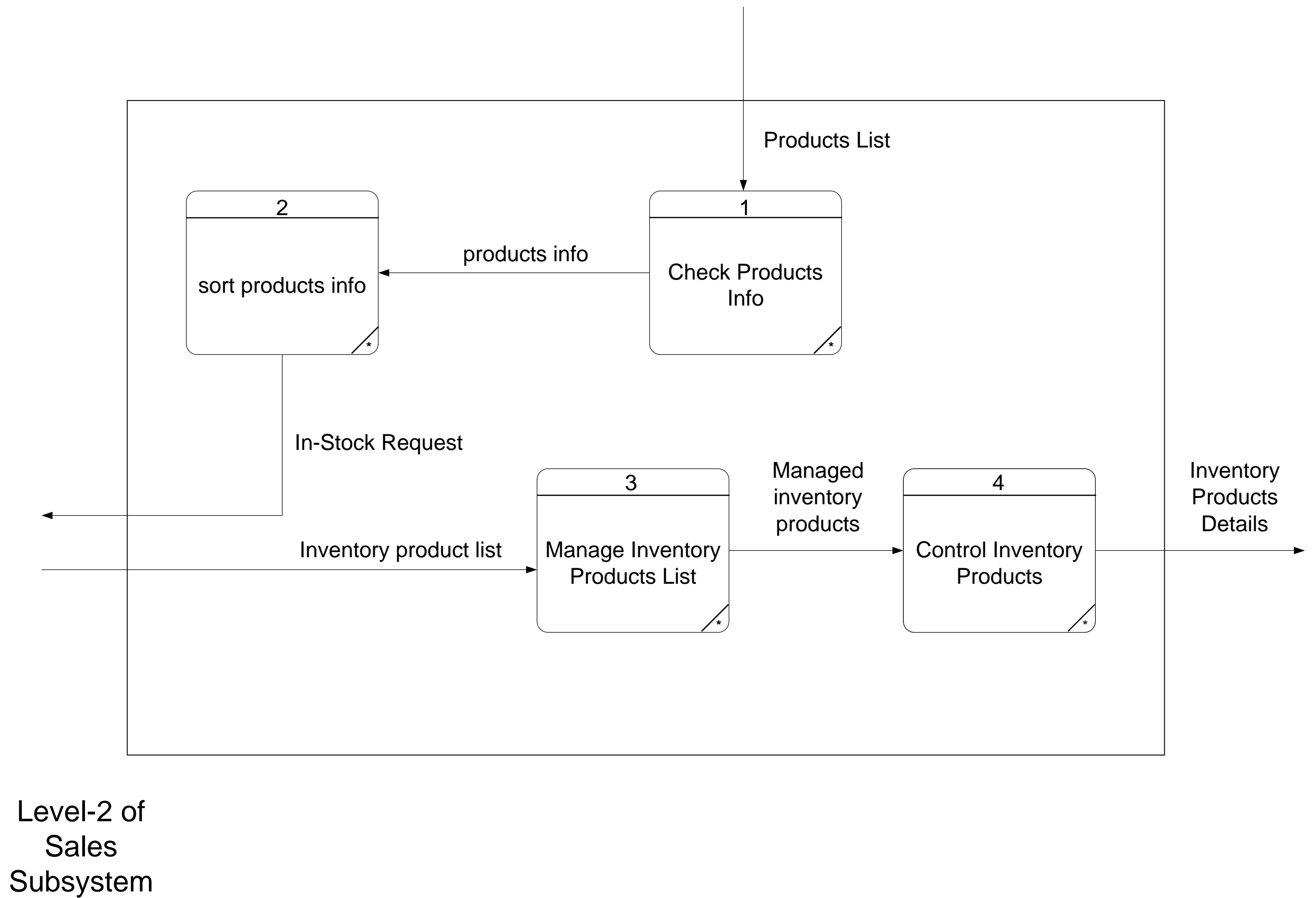




Level-0 of
Sales
Subsystem



Level-1 of
Sales
Subsystem



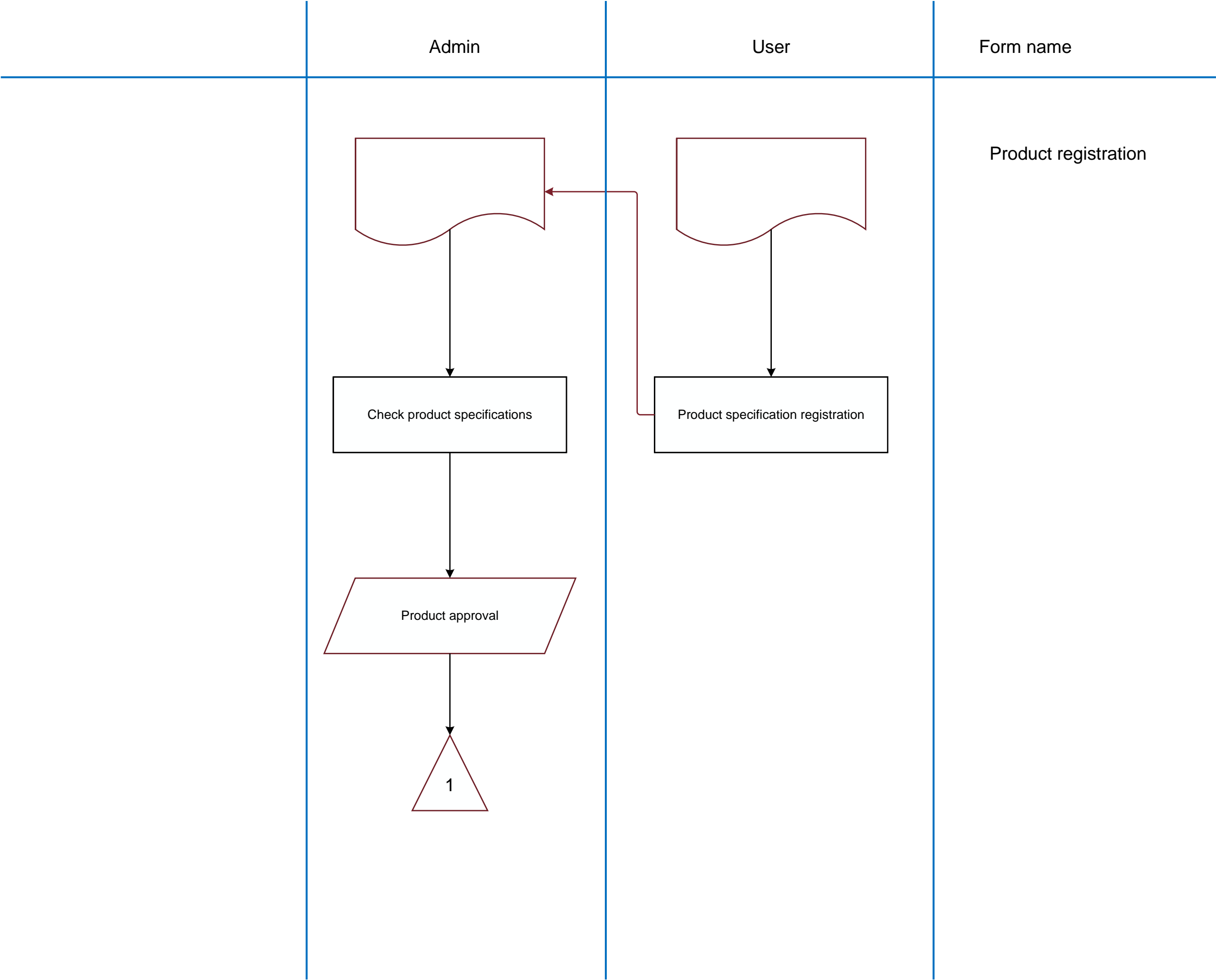
Conclusion of the first phase

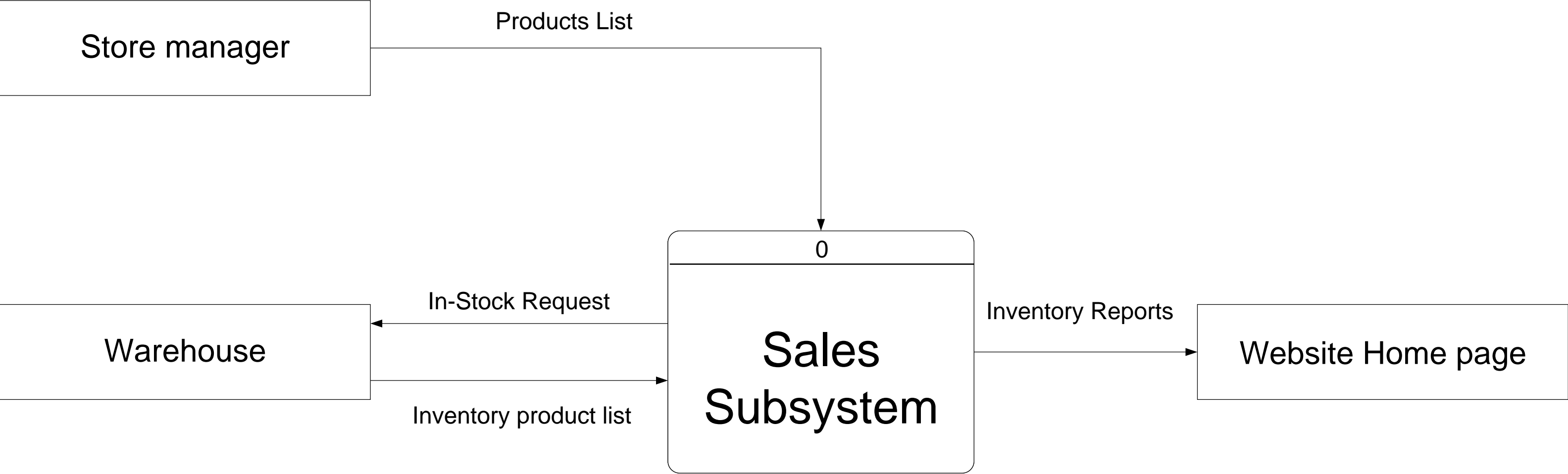
In the sales section, inventory product information entered the main page of the website without reporting.

The second phase

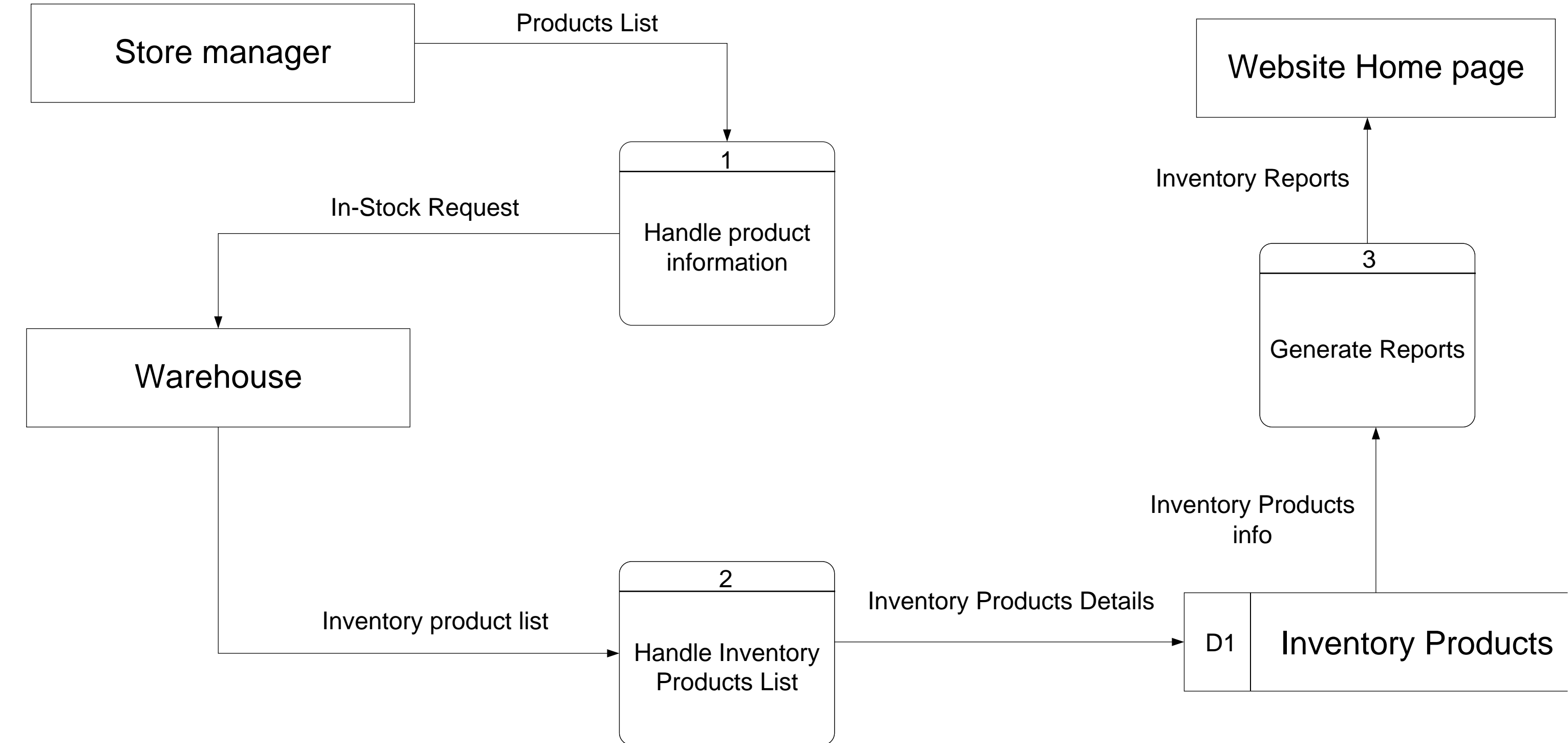
Sales Subsystem

(NEW)

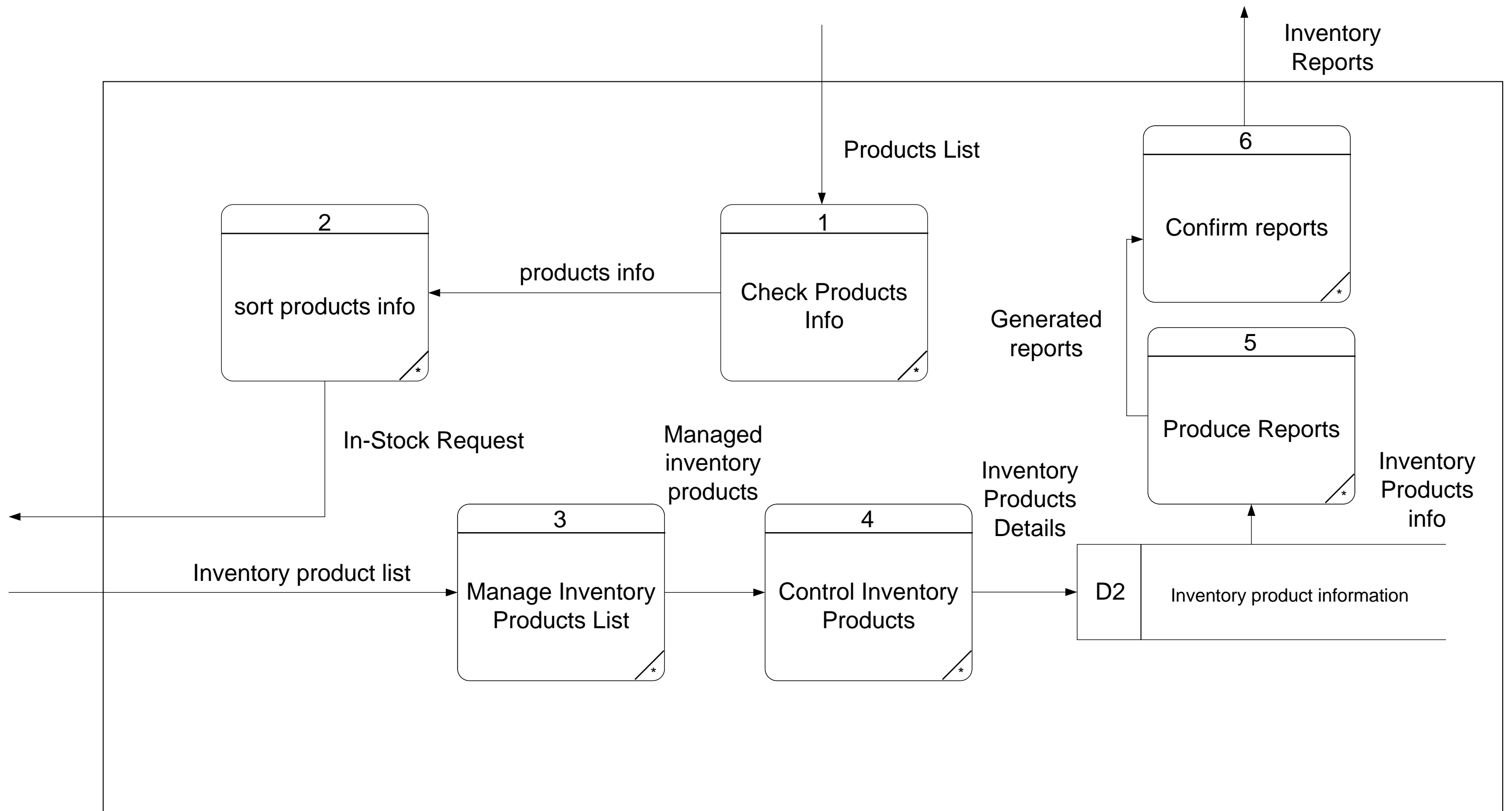




Level-0 of
Sales
Subsystem



Level-1 of
Sales
Subsystem



Level-2 of
Sales
Subsystem

P.S

Process name: Check Products Info
Processing number: 1
Processing Description: Review and handle product information

P.S

Process name: sort products info
Processing number: 2
Processing Description: Sort and Categorize product information

P.S

Process name: Manage Inventory Products List
Processing number: 3
Processing Description: Manage and handle inventory product list

P.S

Process name: Control Inventory Products
Processing number: 4
Processing Description: Control and review inventory products

D.F.D.E

Data Flow Name: products info
Data Flow Description: This information describes the product specifications
From processing: Check Products Info
To process: sort products info
Data Flow Structure: Product name, product description, product code, quantity, product price

Dictionary of data structure

File name: Inventory product information
Subsystem name : Sales

Product Specifications =
{ Product name + product description + product code @ + quantity + product price }

Dictionary of data components

File name: Inventory product information
Subsystem name: Sales

Row	Field name	Field Description	Field type	Number	Remarks
1	Product name				File key
2	product description				
3	product code				
4	quantity				
5	product price				

P.S

Process name: Produce Reports

Processing number: 5

Processing Description: Generate reports from inventory products information

P.S

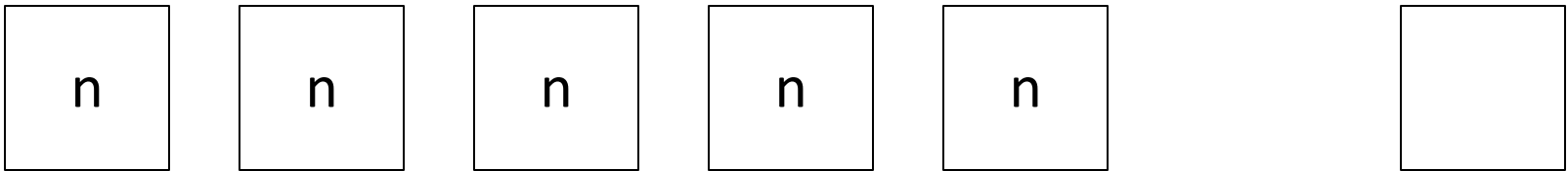
Process name: Confirm reports

Processing number: 6

Processing Description: Confirm generated reports

Calculate the control digit based on even numbers

We have a report with code **6 and** 74521



$n=\{1,2,3,...,9\}$

Control digit

7 4 5 2 1

× × × × ×

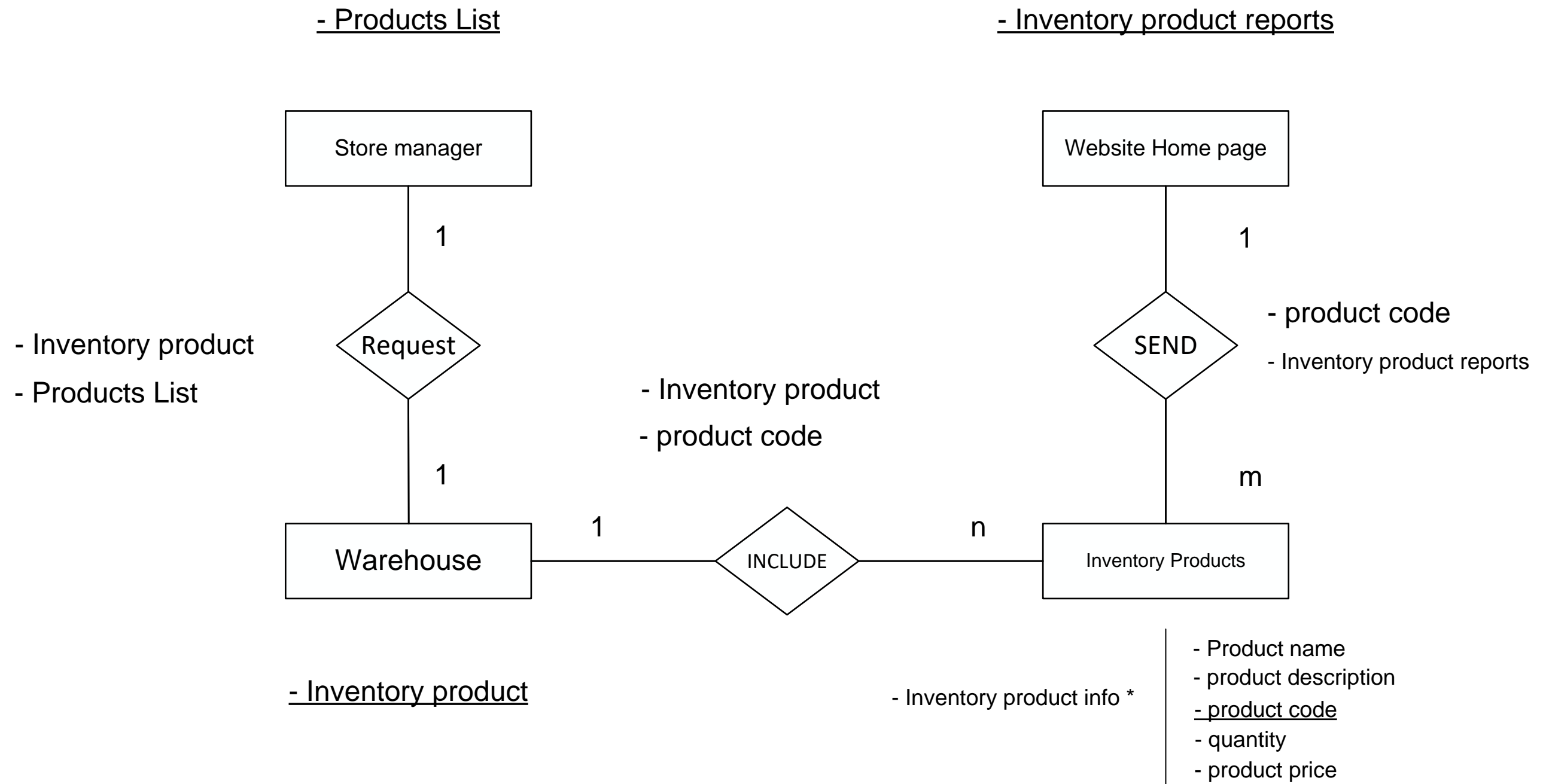
8 6 4 2 0

$$56 + 24 + 20 + 4 + 0$$

Now the resulting number must be subtracted from the first multiple of 11 equal to or greater than itself.

$$110 - 104 = 6$$

Determining users' information needs						
Subsystem Name: Sales						
User: Store Manager						
Row	Duties	needed information	Source	How to receive	Receipt time	considerations
1	Manage and classify inventory product lists	<ul style="list-style-type: none">- Product Code- Product information- Price of goods	List of goods in stock	Written	-	-



Inventory product

Inventory product	Inventory product info

Inventory product	Products List

Inventory product info	Inventory product reports

Inventory product reports

First phase

Financial Subsystem

(OLD)

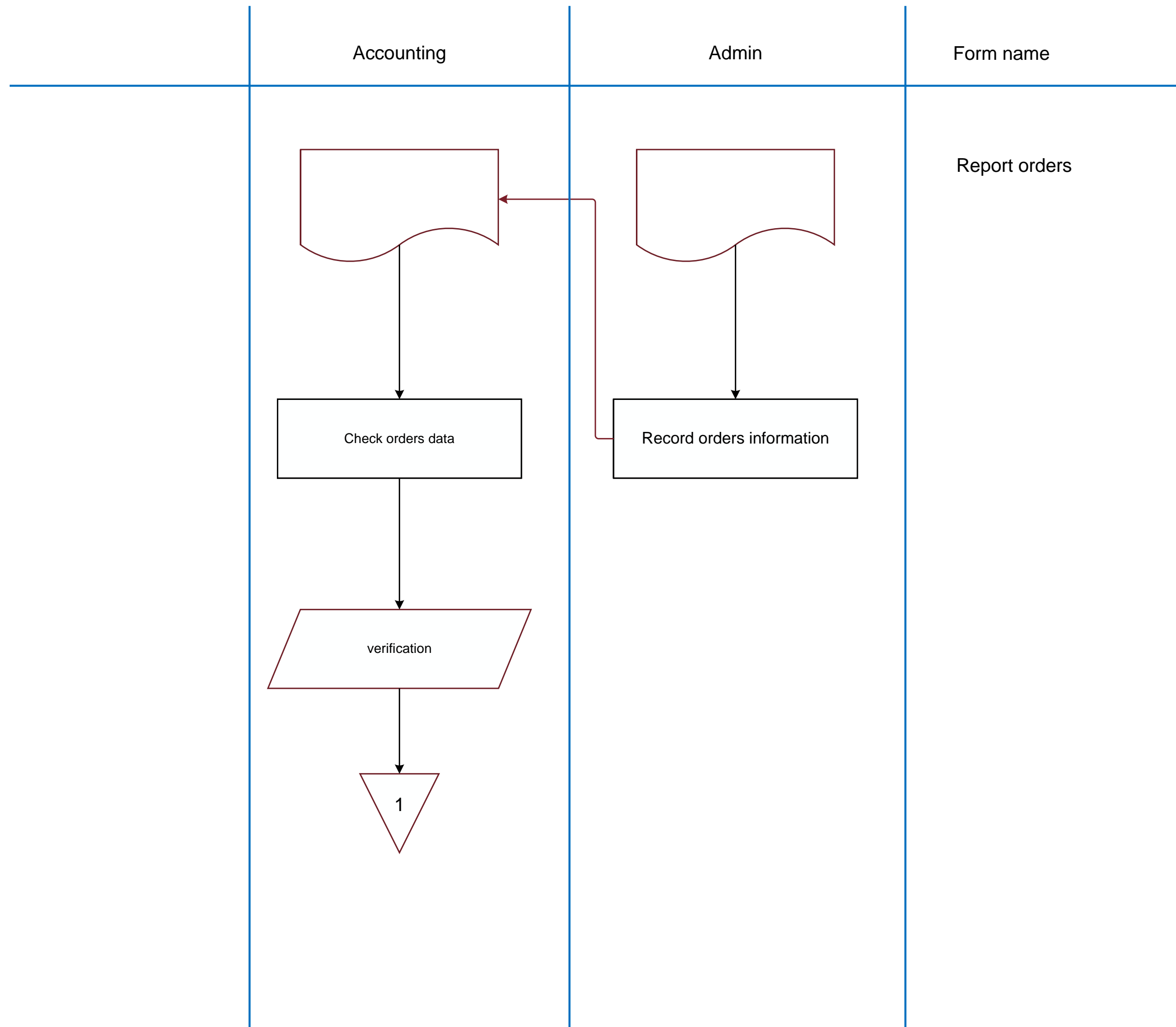
Questionnaire on the strengths and weaknesses of the online store system

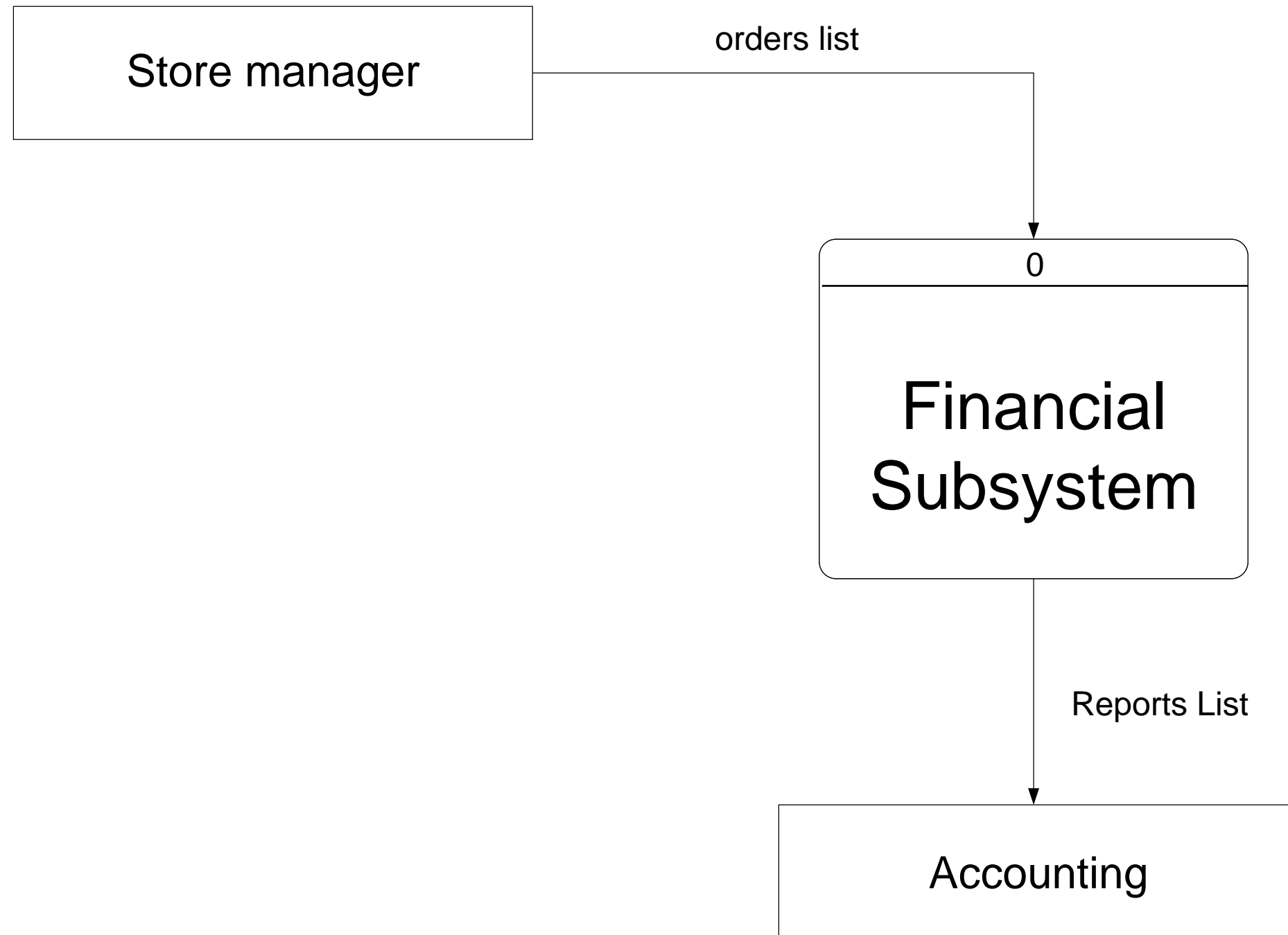
Subsystem: Financial

User: Store Manager

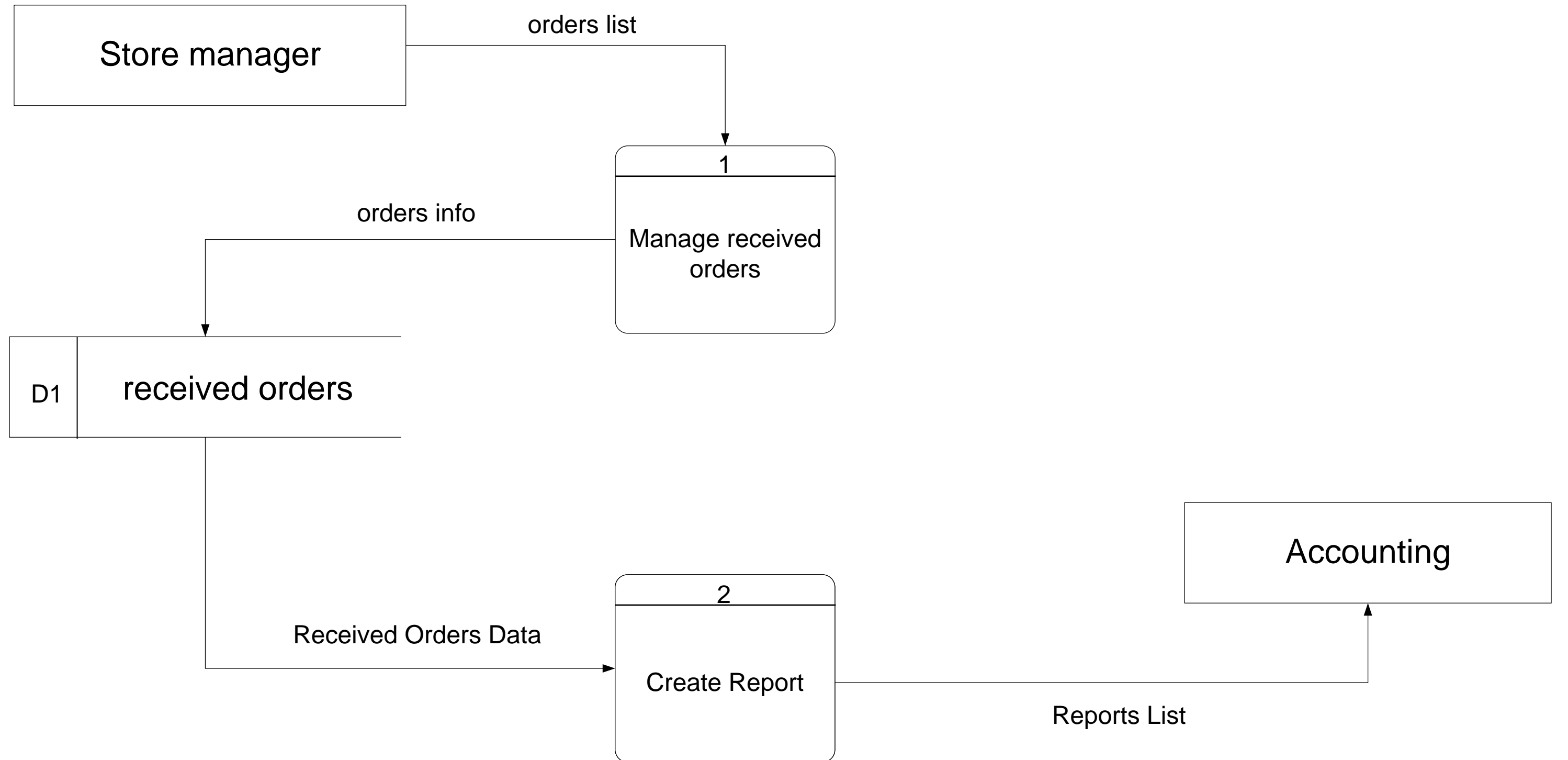
1- Are the reports created from the accepted orders transferred to the accounting department? Yes No

Date and signature

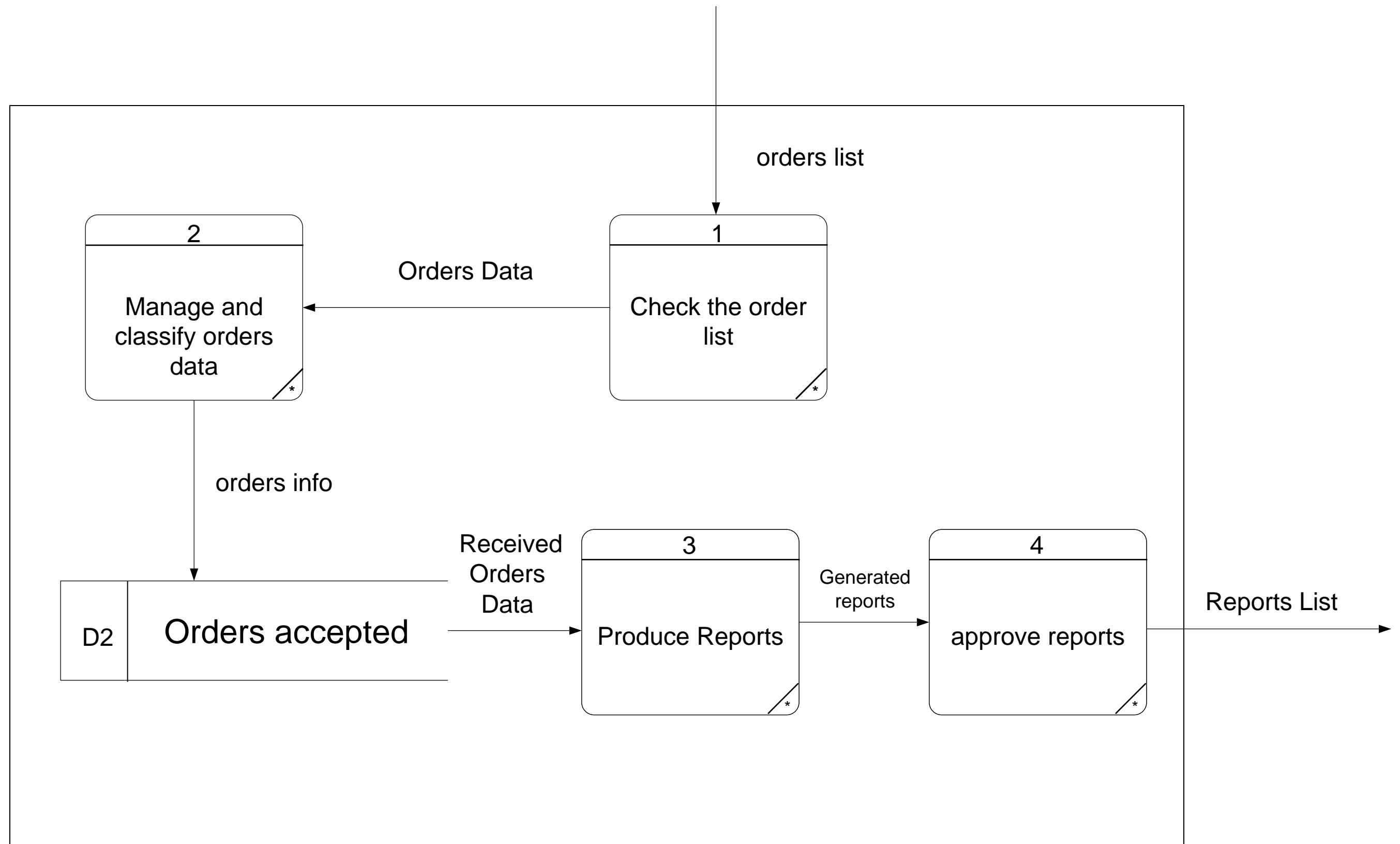




Level-0 of
Financial
Subsystem



Level-1 of
Financial
Subsystem



Level-2 of
Financial
Subsystem

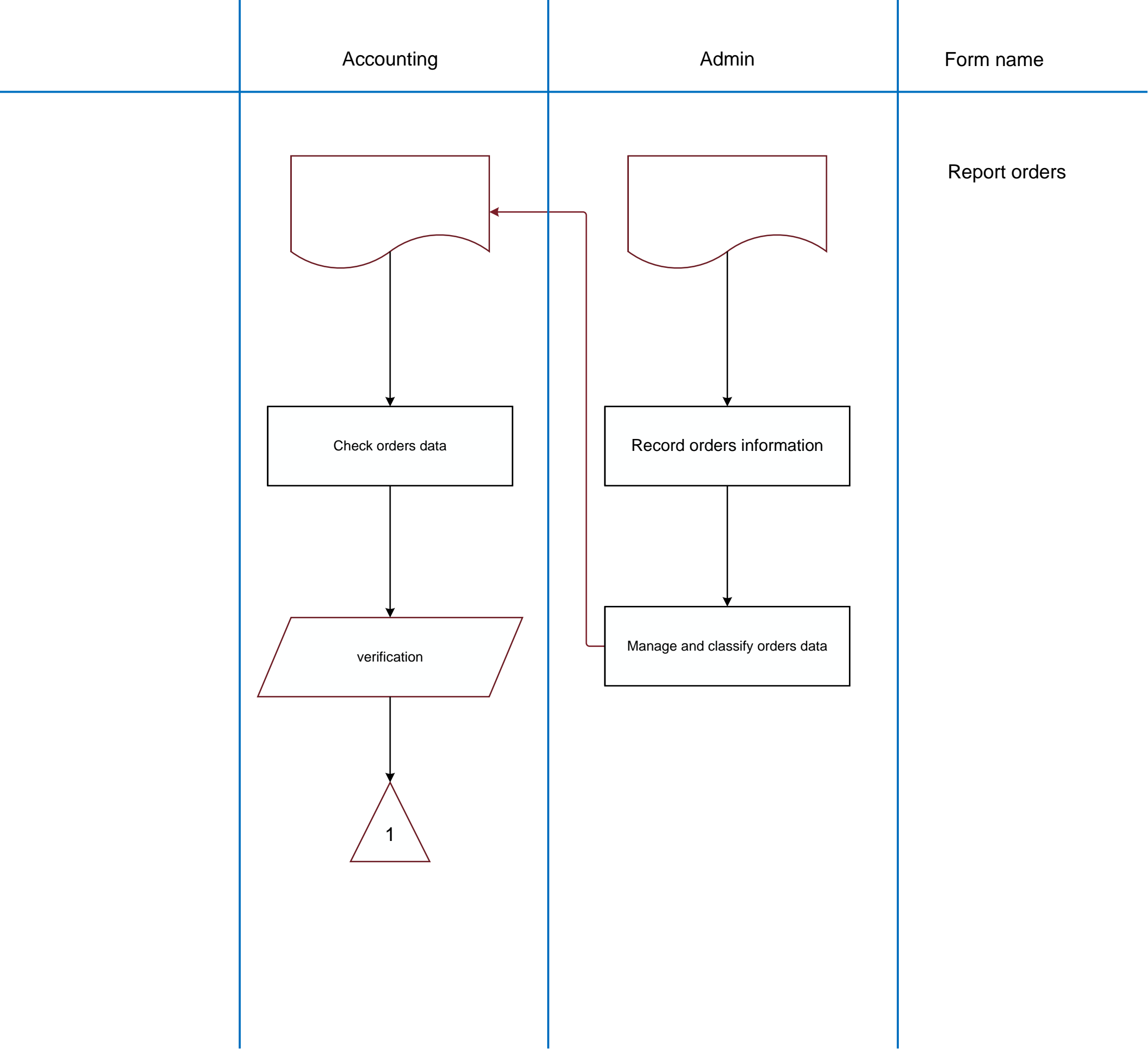
Conclusion of the first phase

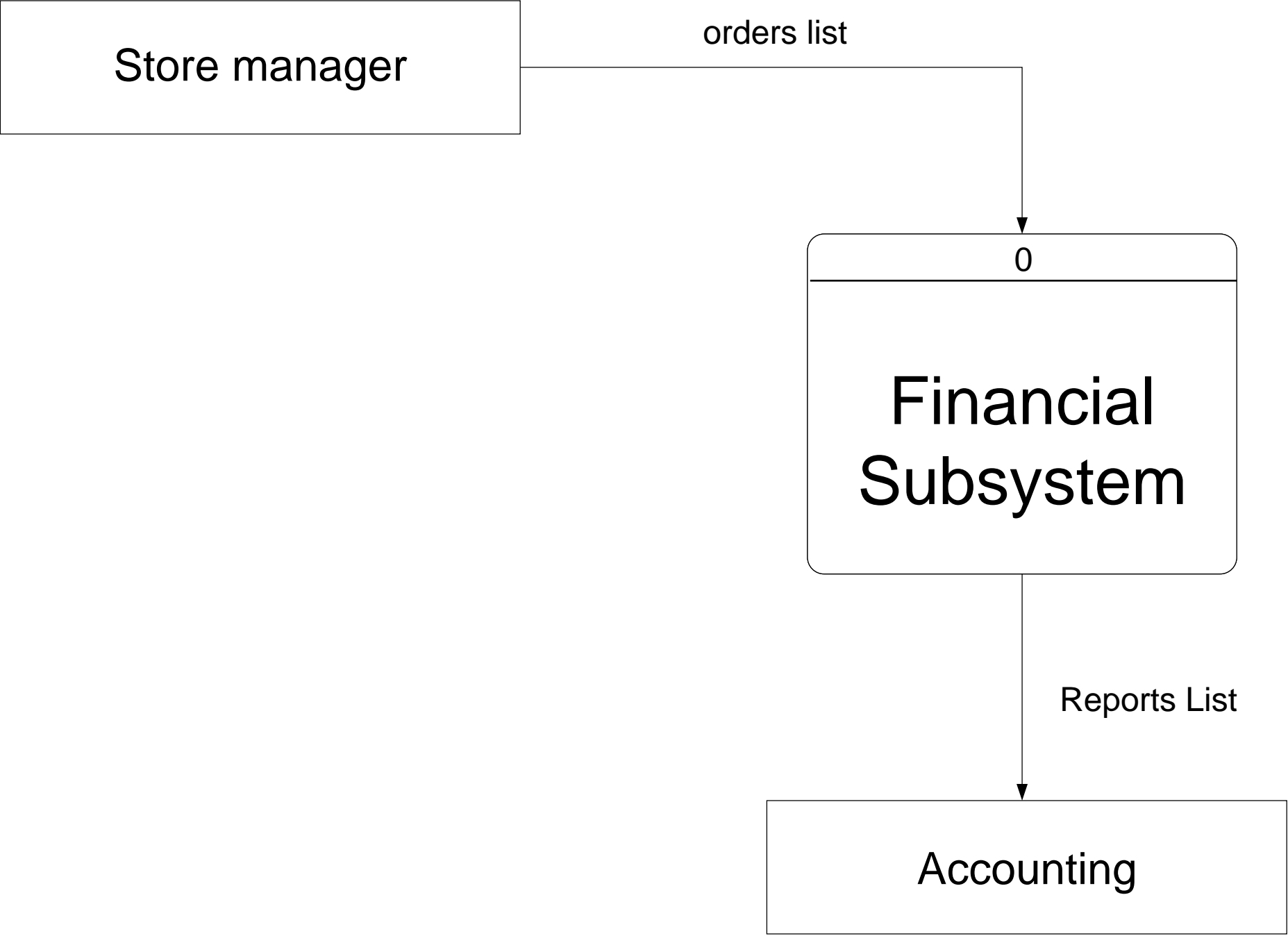
In the financial section, the reports generated from the order data received were sent to the accounting department without sorting and classification.

The second phase

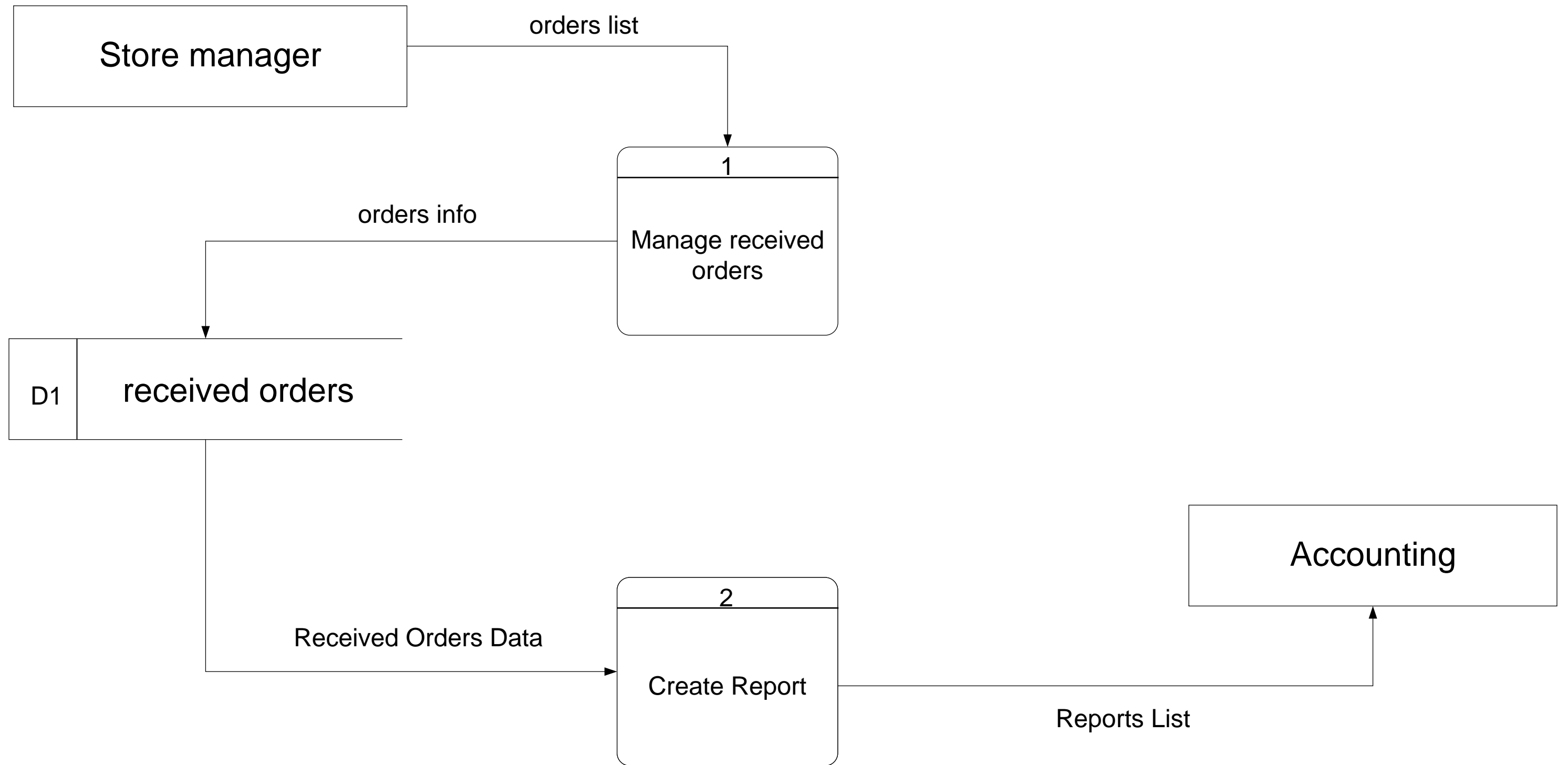
Financial Subsystem

(NEW)

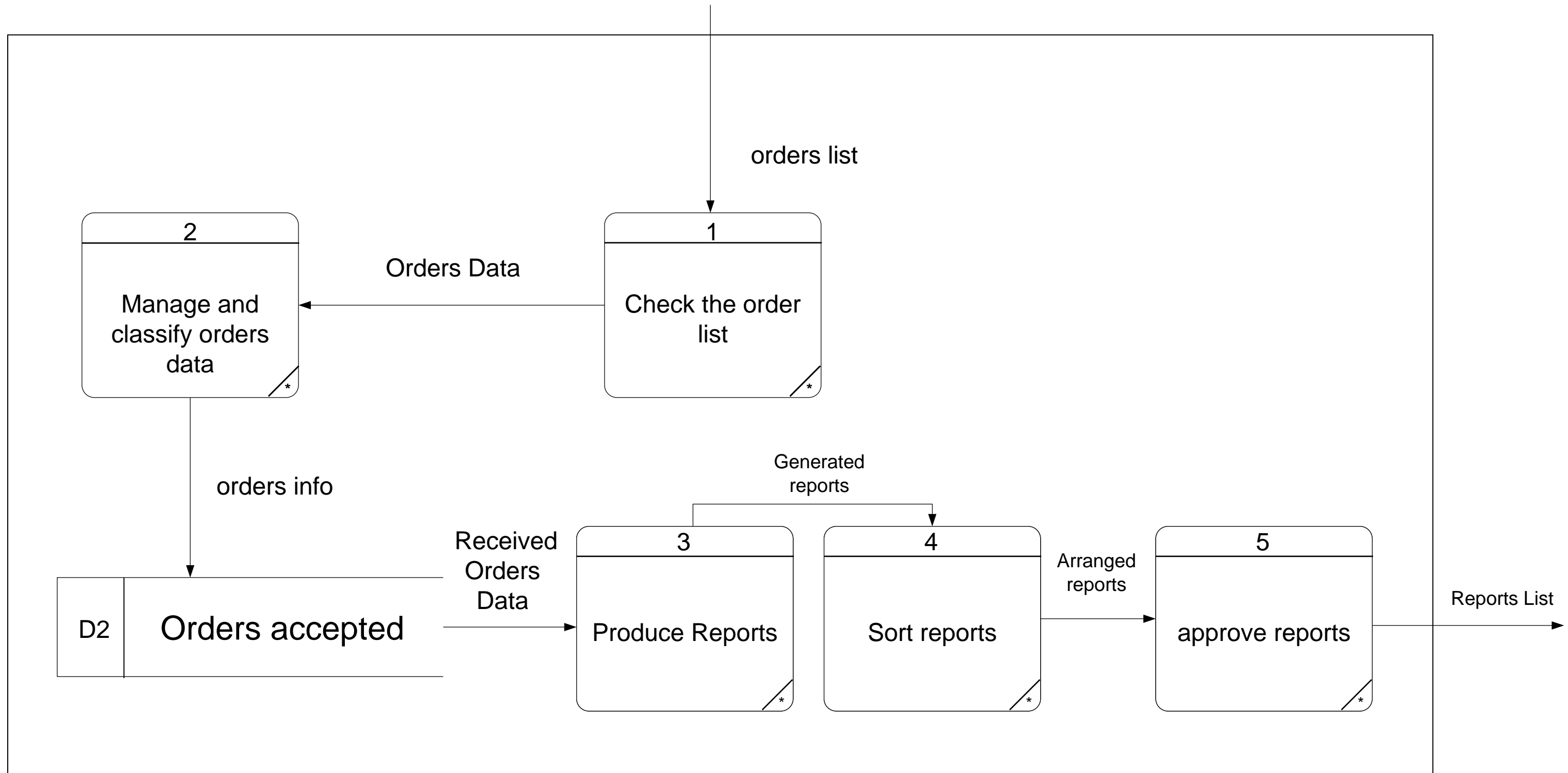




Level-0 of
Financial
Subsystem



Level-1 of
Financial
Subsystem



Level-2 of
Financial
Subsystem

P.S

Process name: Check the order list
Processing number: 1
Processing Description: Check and control the order list

P.S

Process name: Manage and classify orders data
Processing number: 2
Processing Description: Manage, handle and classify orders data

P.S

Process name: Produce Reports
Processing number: 3
Processing Description: Generate reports from order information

P.S

Process name: Sort reports
Processing number: 4
Processing Description: Sort and categorize reports

P.S

Process name: approve reports
Processing number: 5
Processing Description: Confirmation of generated reports

Dictionary of data structure

File name: Orders accepted
Subsystem name : Financial

Order Specifications =
{ order name + order description + order code @ + Number + order price }

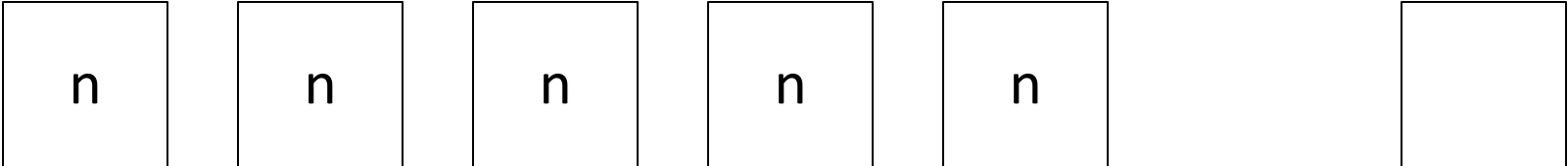
Dictionary of data components

File name: Orders accepted
Subsystem name: Financial

	Field name	Field Description	Field type	Number	Remarks
1	order name				File key
2	order description				
3	order code				
4	number				
5	order price				

Method of calculating the control digit based on the first powers

We have a report with code **3 and** 52416



5	2	4	1	6
×	×	×	×	×
2^{11}	2^7	2^5	2^3	2^2

$n=\{1,2,3,...,9\}$

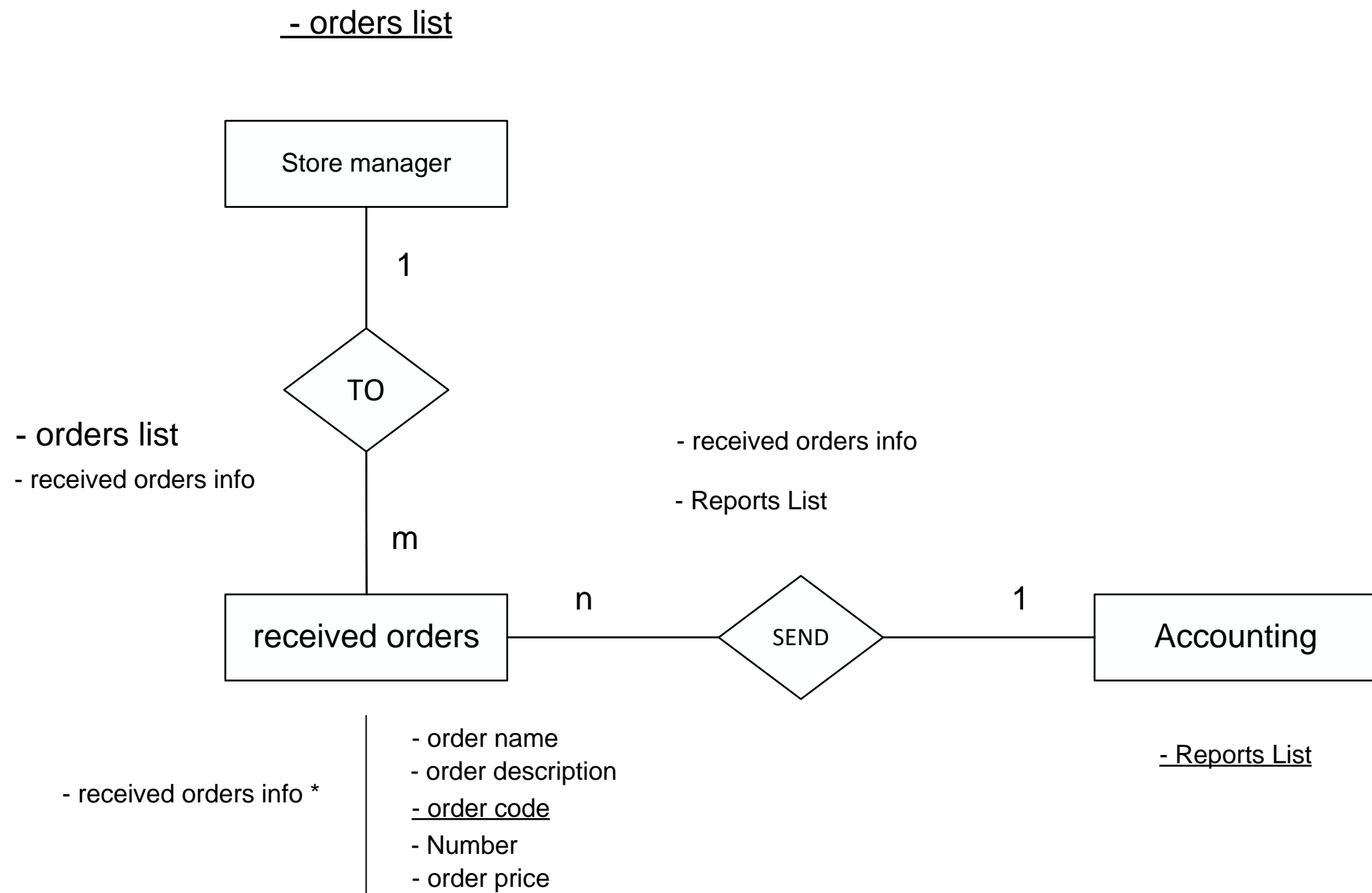
Control digit

$10240 + 256 + 128 + 8 + 24$

Now the resulting number must be subtracted from the first multiple of 11 equal to or greater than itself.

$10659 - 10656 = 3$

<div>Determining users' information needs</div> <div>Subsystem name: Financial</div> <div>User: Store Manager</div>						
Row	Duties	needed information	Source	How to receive	Receipt time	considerations
1	Generate reports of received orders	<div><div>- Order code</div><div>- Order details</div><div>- Order price</div></div>	Admin panel	Written	-	-



received orders info	orders list

orders list

received orders info	Reports List

Reports List

First phase

Delivery Subsystem

(OLD)

Questionnaire on the strengths and weaknesses of the online store system

Subsystem: Delivery

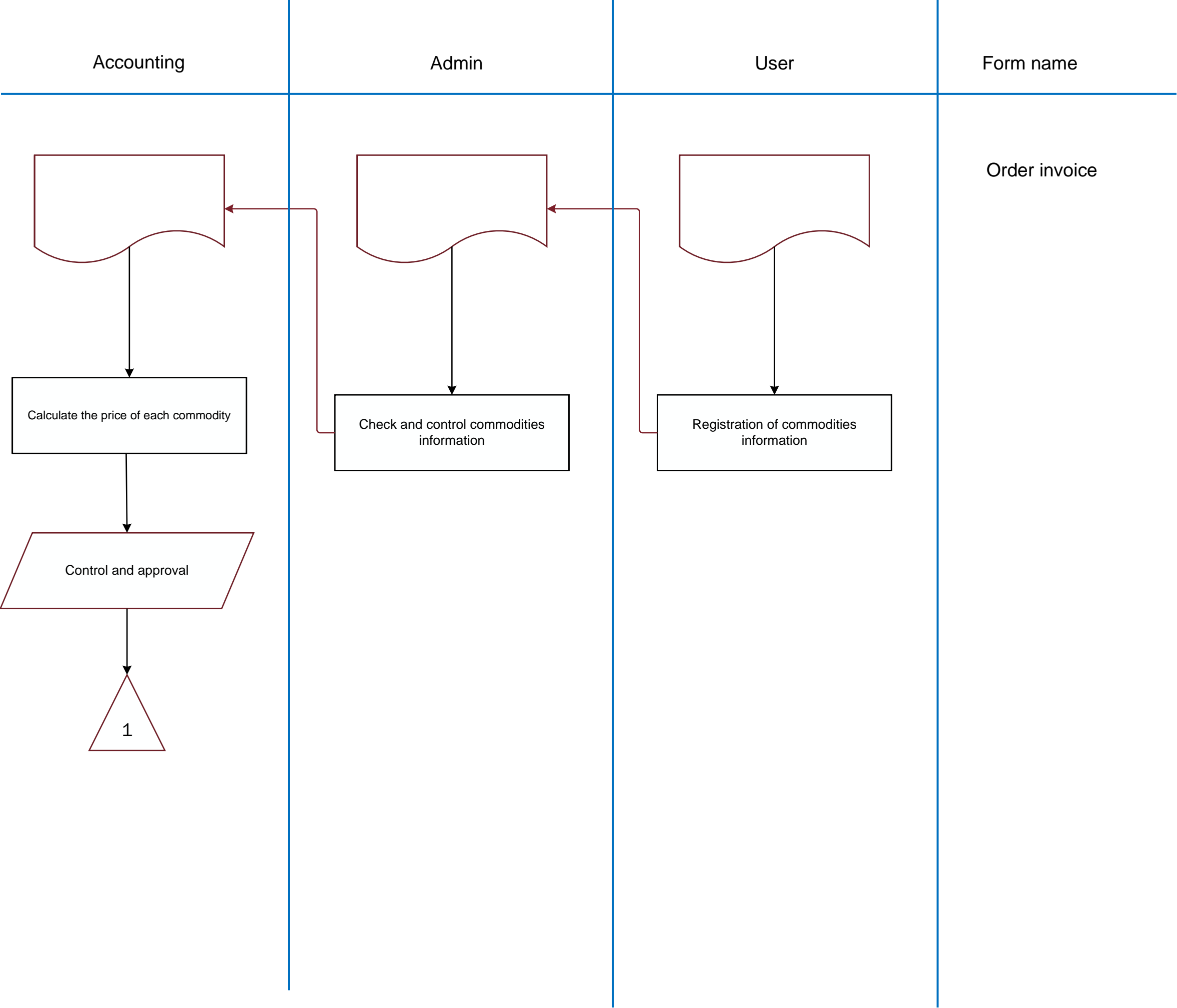
User: Store Manager

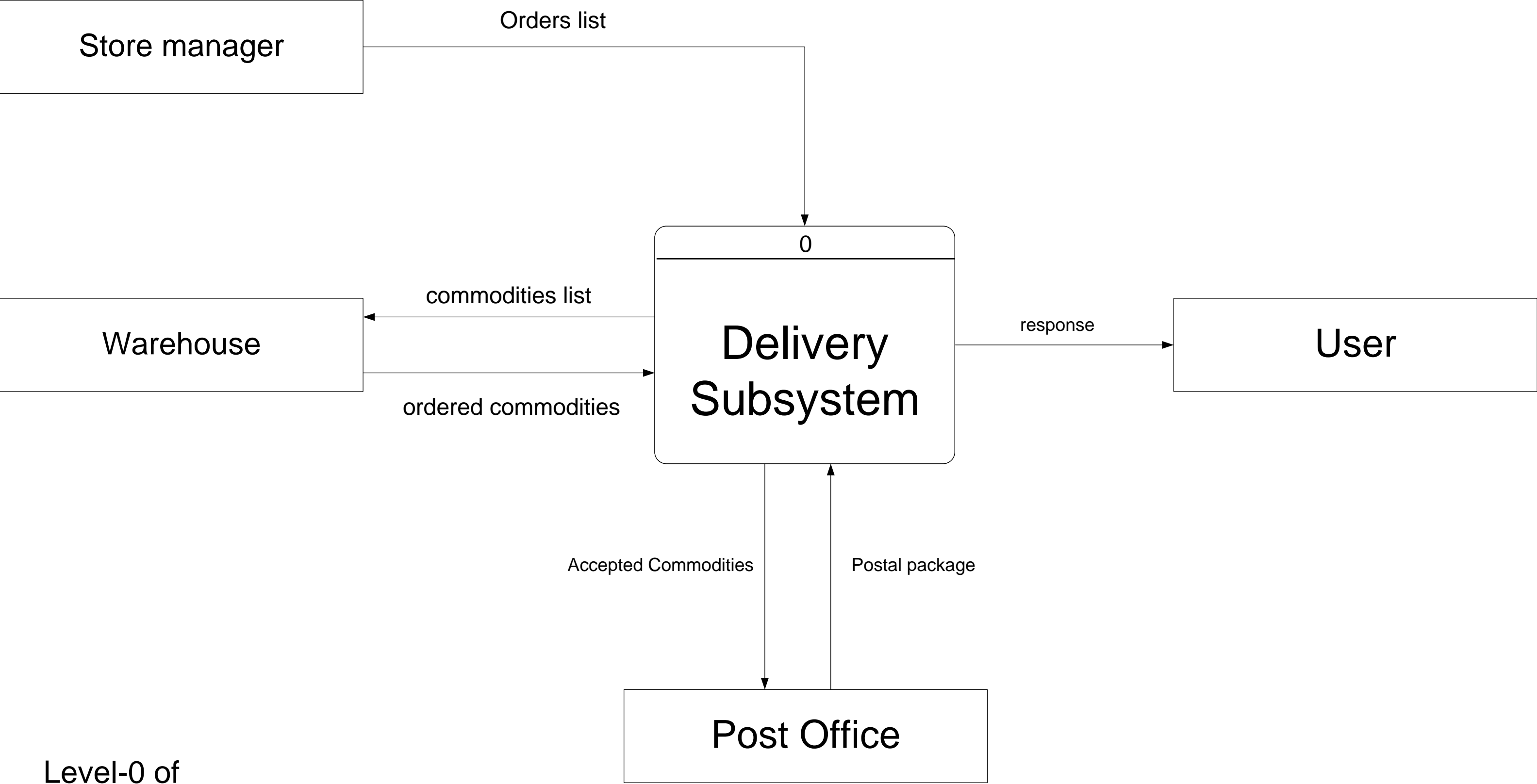
1- Are the ordered goods grouped and controlled before delivery to the post office?

Yes

No

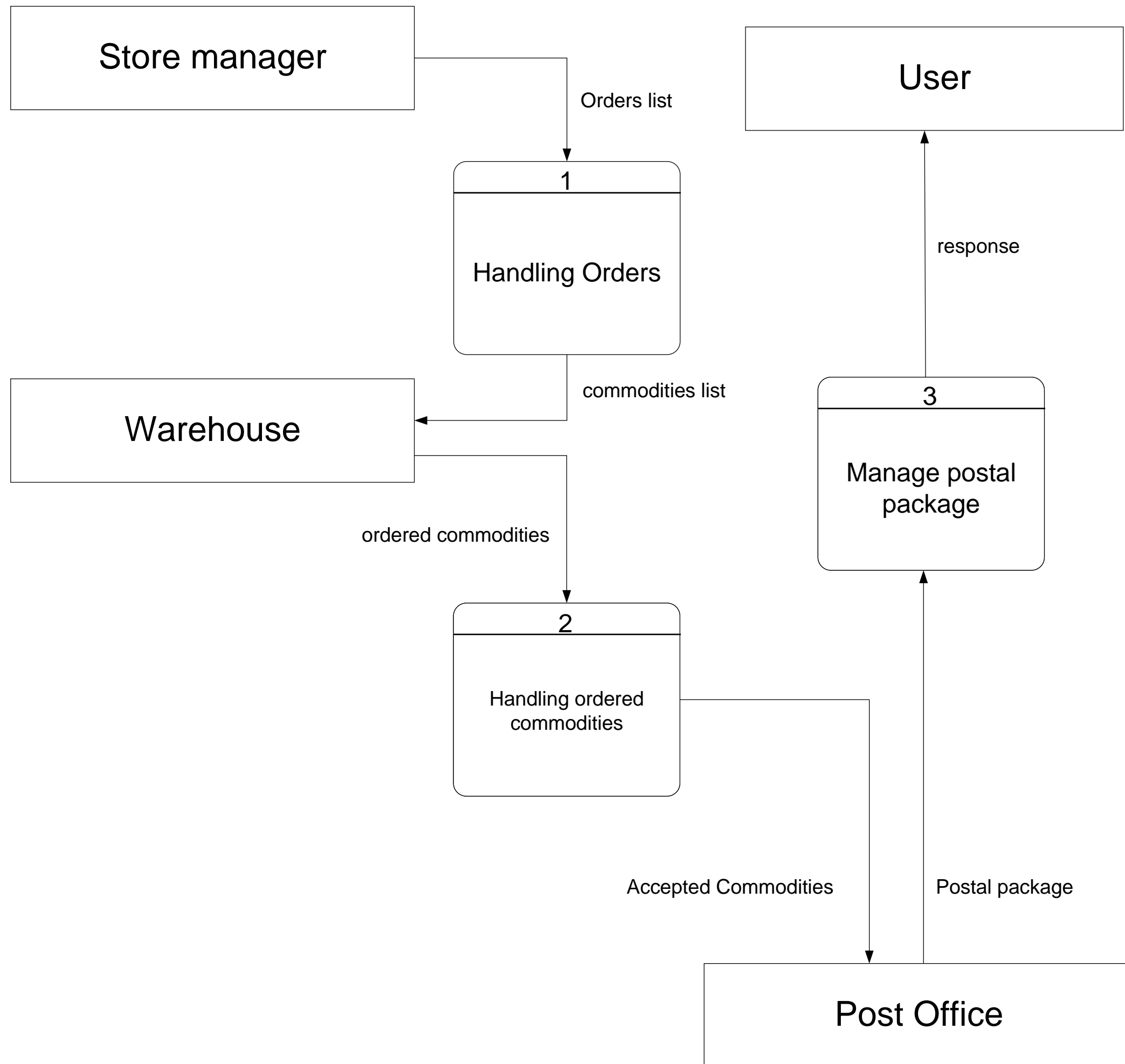
Date and signature



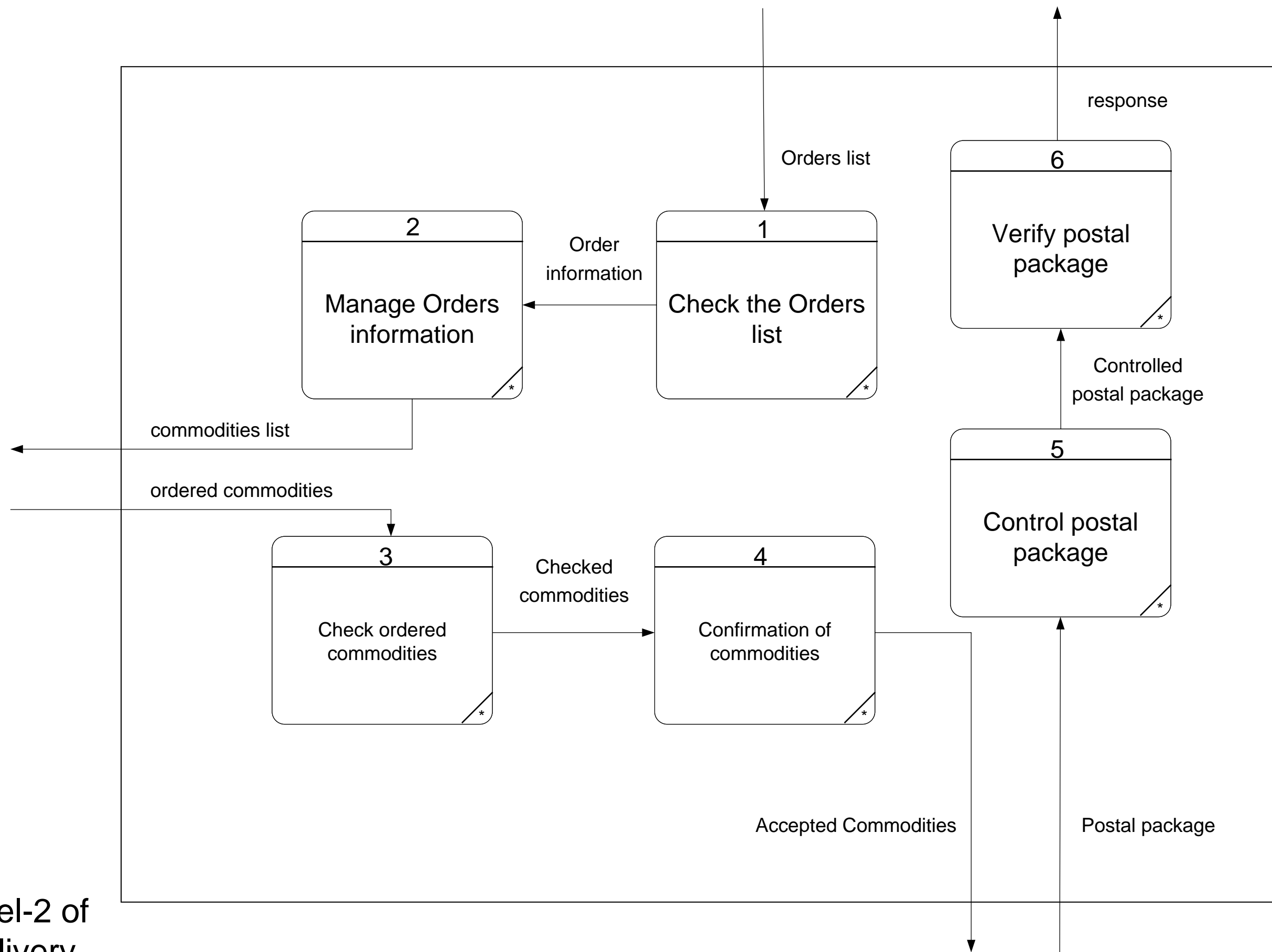


Level-0 of
Delivery
Subsystem

Level-1 of
Delivery
Subsystem



Level-2 of
Delivery
Subsystem



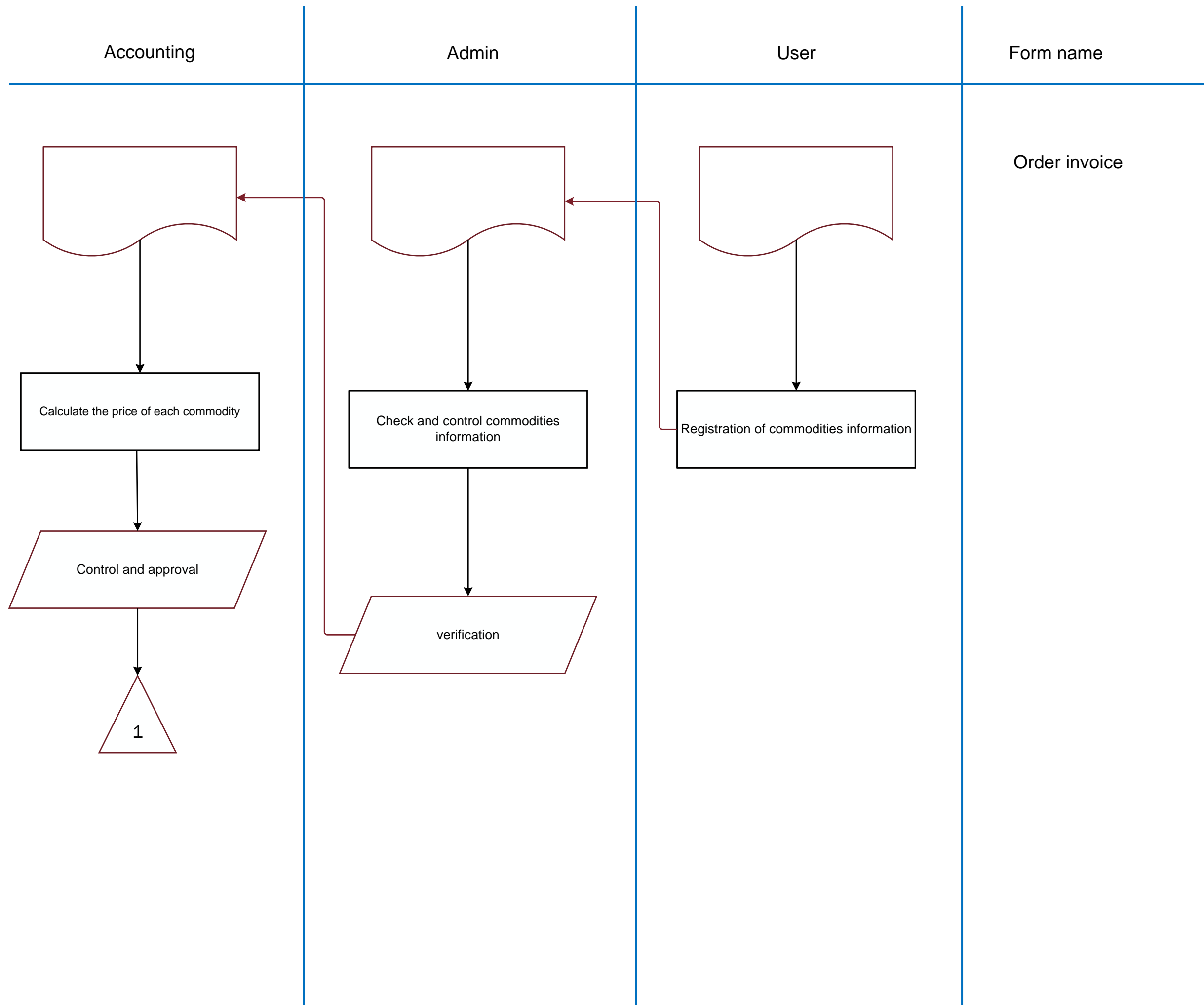
Conclusion of the first phase

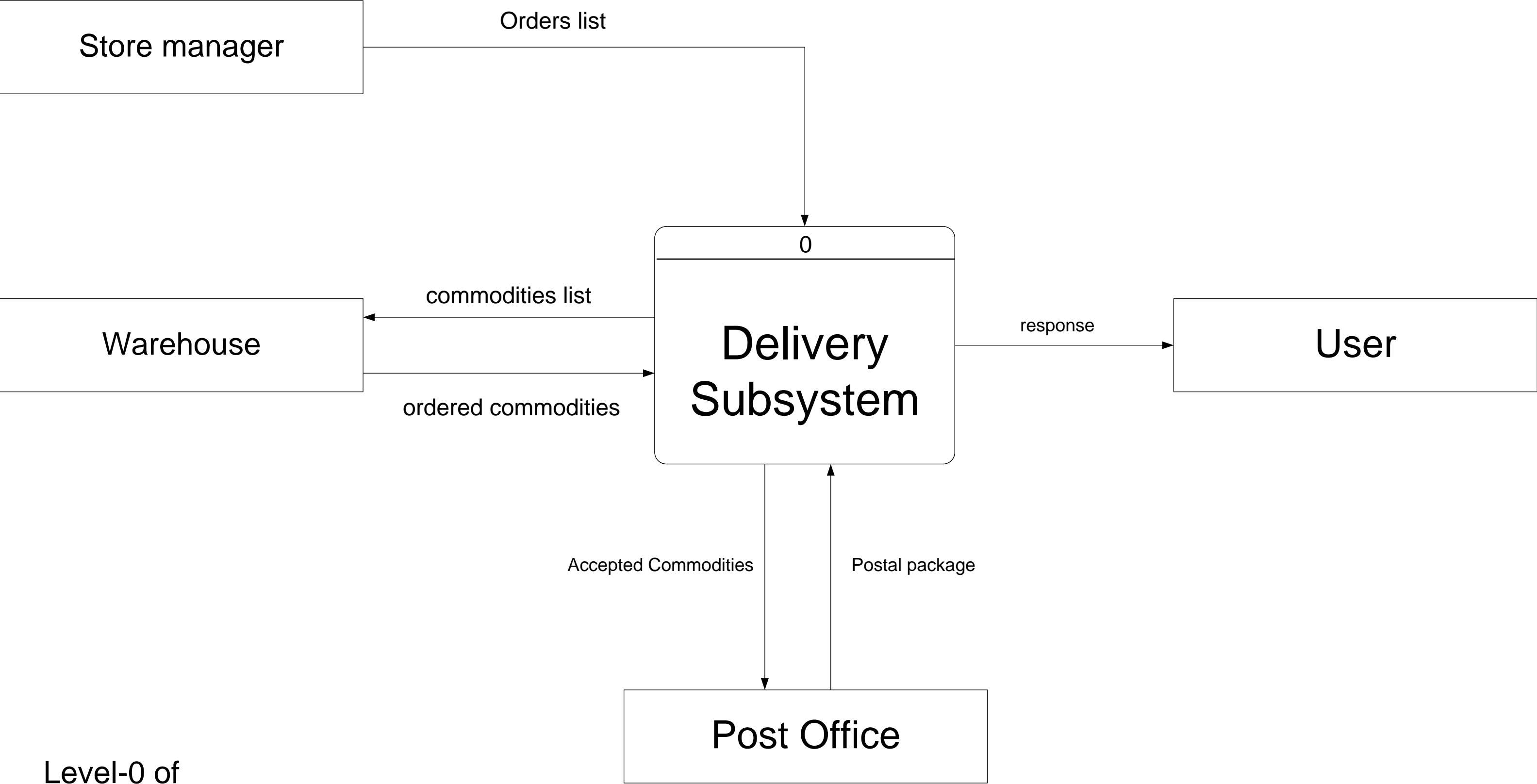
In the delivery section, the ordered goods were not grouped and controlled, and this caused errors in sending the goods to the post office.

The second phase

Delivery Subsystem

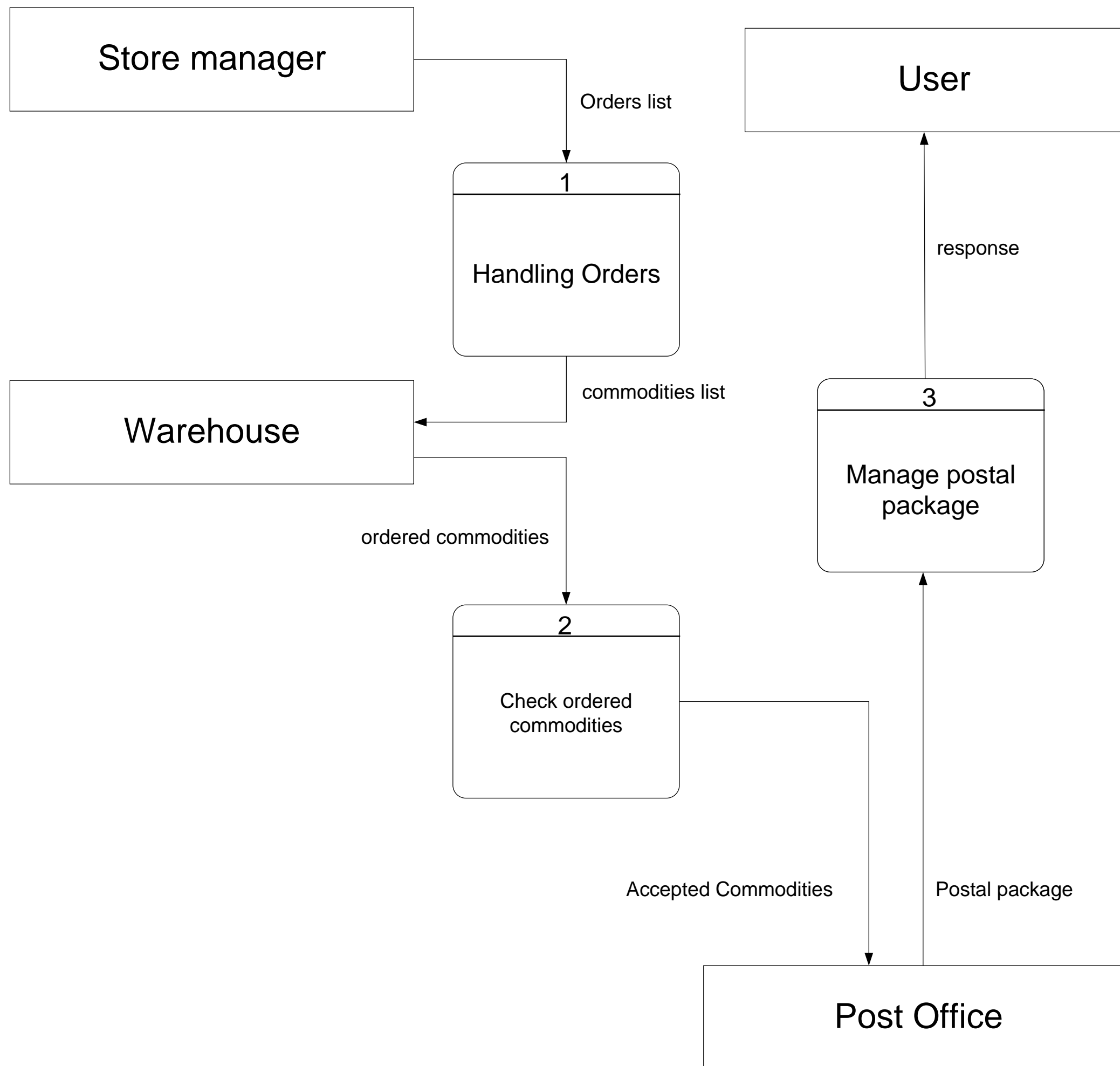
(NEW)



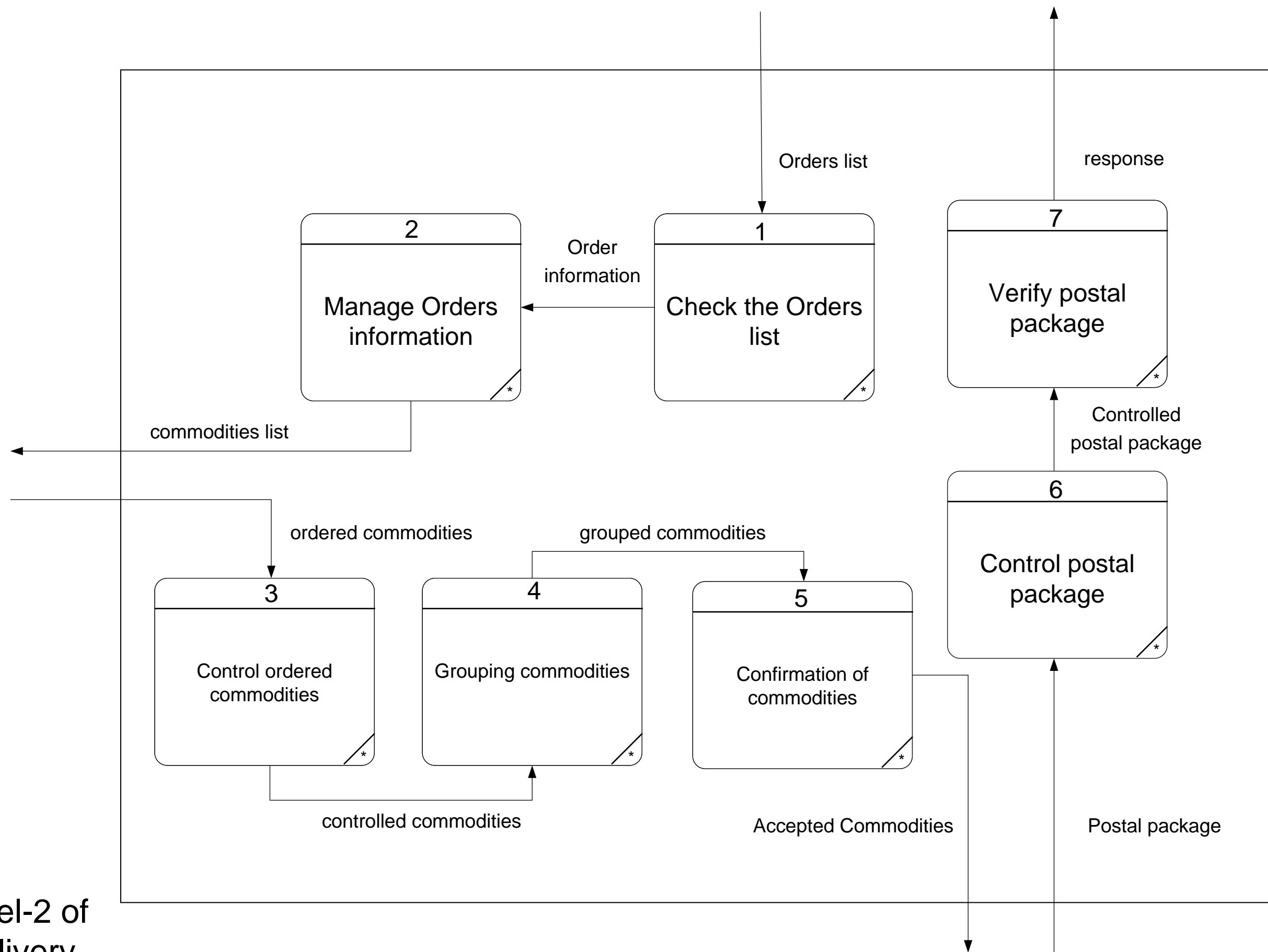


Level-0 of
Delivery
Subsystem

Level-1 of
Delivery
Subsystem



Level-2 of
Delivery
Subsystem



P.S

Process name: Check the Orders list

Processing number: 1

Processing Description: Check the list of given orders

P.S

Process name: Manage Orders information

Processing number: 2

Processing Description: Manage and handle order information

P.S

Process name: Control ordered commodities

Processing number: 3

Processing Description: Control and review of ordered commodities

P.S

Process name: Grouping commodities

Processing number: 4

Processing Description: grouping and category ordered commodities

P.S

Process name: Confirmation of commodities

Processing number: 5

Processing Description: Verification of ordered commodities

P.S

Process name: Control postal package

Processing number: 6

Processing Description: Control and check the health of the postal package

P.S

Process name: Verify postal package

Processing number: 7

Processing Description: Confirm the postal package

D.F.D.E

Data Flow Name: Order information

Data Flow Description: This information describes the specifications ordered

From processing: Check the Orders list

To process: Manage Orders information

Data Flow Structure: commodity name, commodity description, commodity code, Number, Unit price

Method of calculating the control cultivar based on even powers

We have a postal package with code **5 and** 29183

n

n

n

n

n

n={1,2,3,...,9}

Control digit

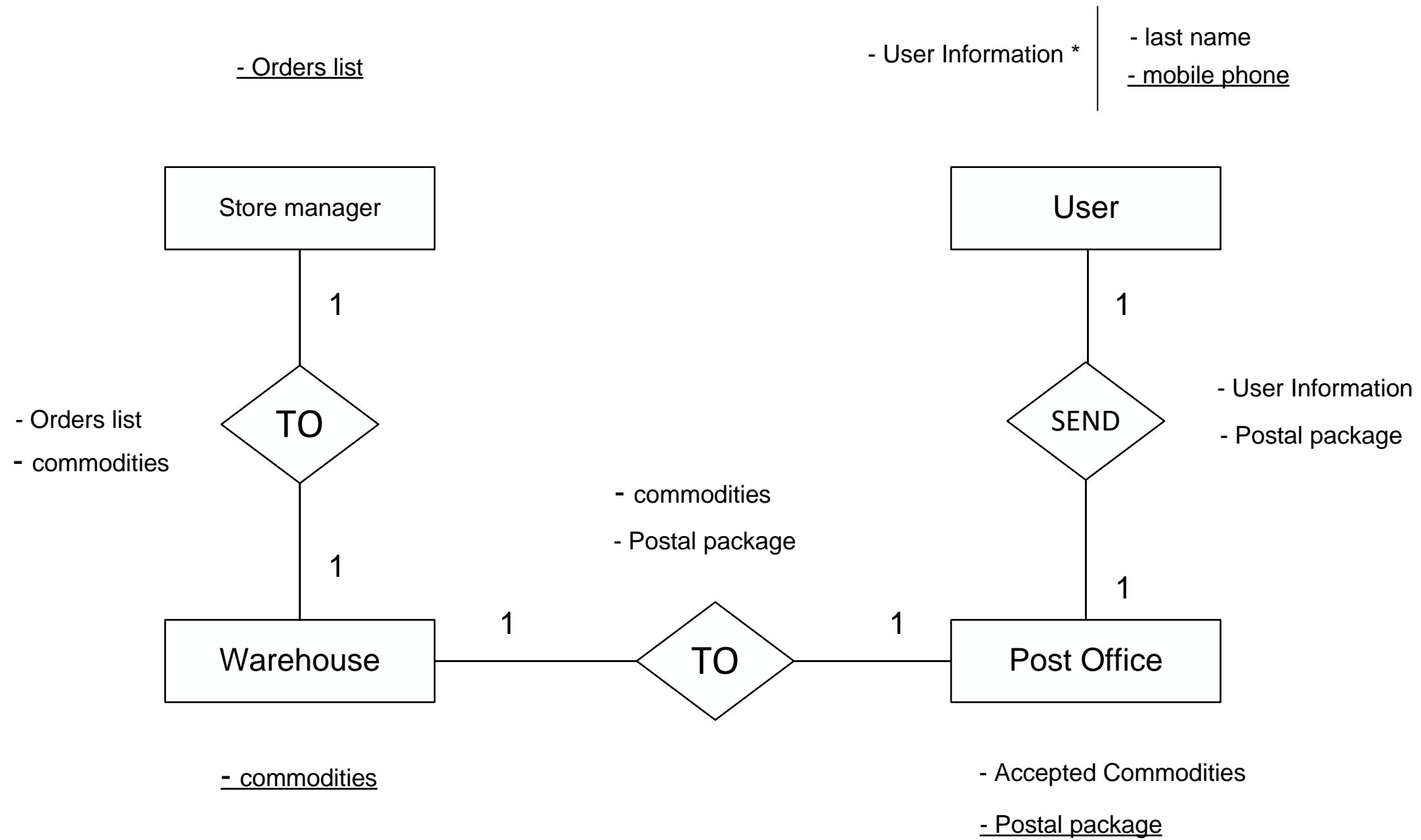
2	9	1	8	3
×	×	×	×	×
2 ⁸	2 ⁶	2 ⁴	2 ²	2 ⁰

512 + 576 + 16 + 32 + 3

Now the resulting number must be subtracted from the first multiple of 11 equal to or greater than itself.

1144 – 1139 = 5

<div>Determining users' information needs</div> <div>Subsystem name: Delivery</div> <div>User: Store Manager</div>						
Row	Duties	needed information	Source	How to receive	Receipt time	considerations
1	Manage and review order information	<div><div>- Order code</div><div>- Order details</div></div>	Admin panel	Written	-	-



Orders list	commodities

commodities	Postal package

User Information	Postal package

Implementation method

The method of implementing an online store can be that the user enters his user panel after registration through an API and selects his orders, and after registering the order, enters the final payment page and the final amount through a bank portal. To pay.