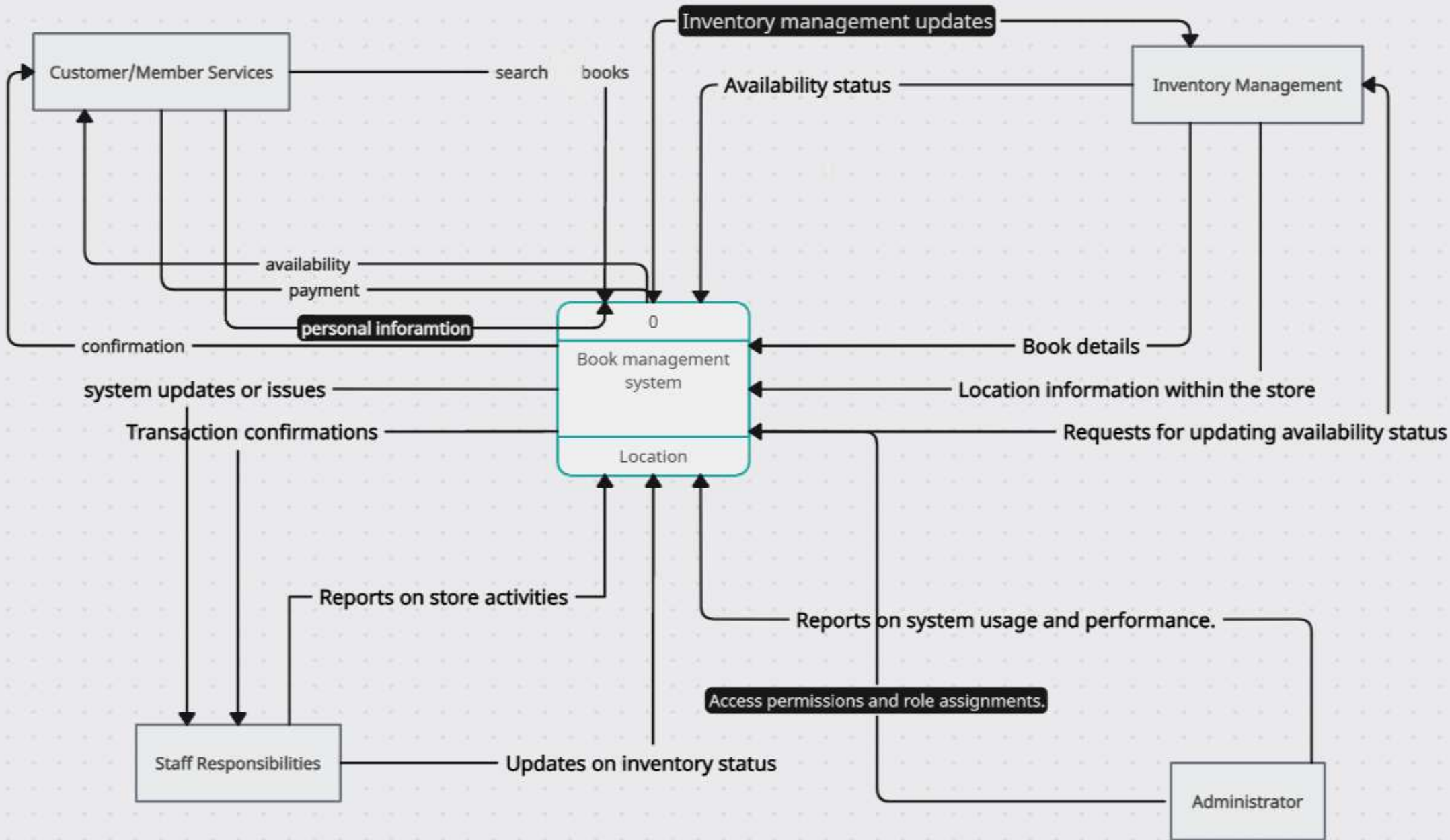
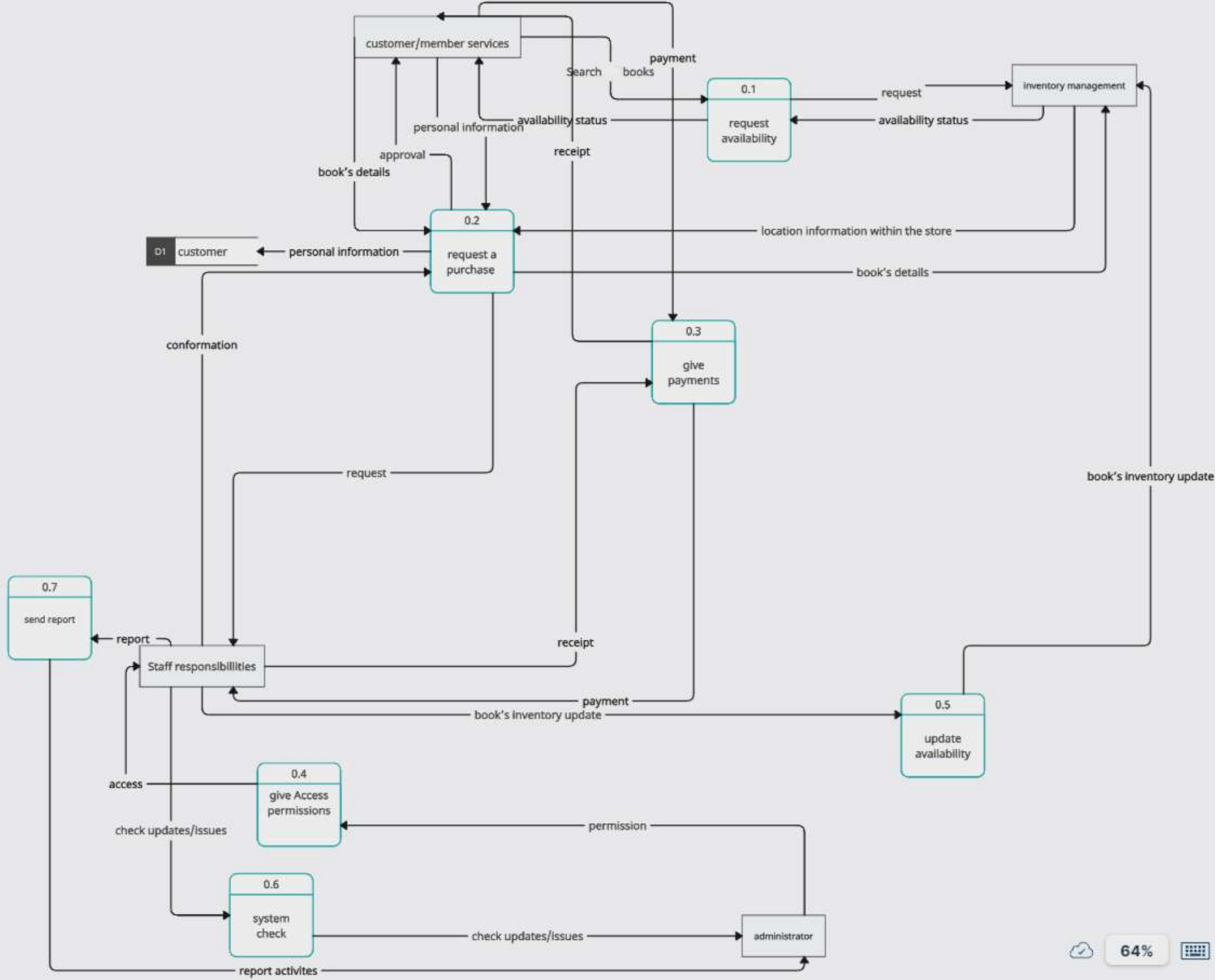
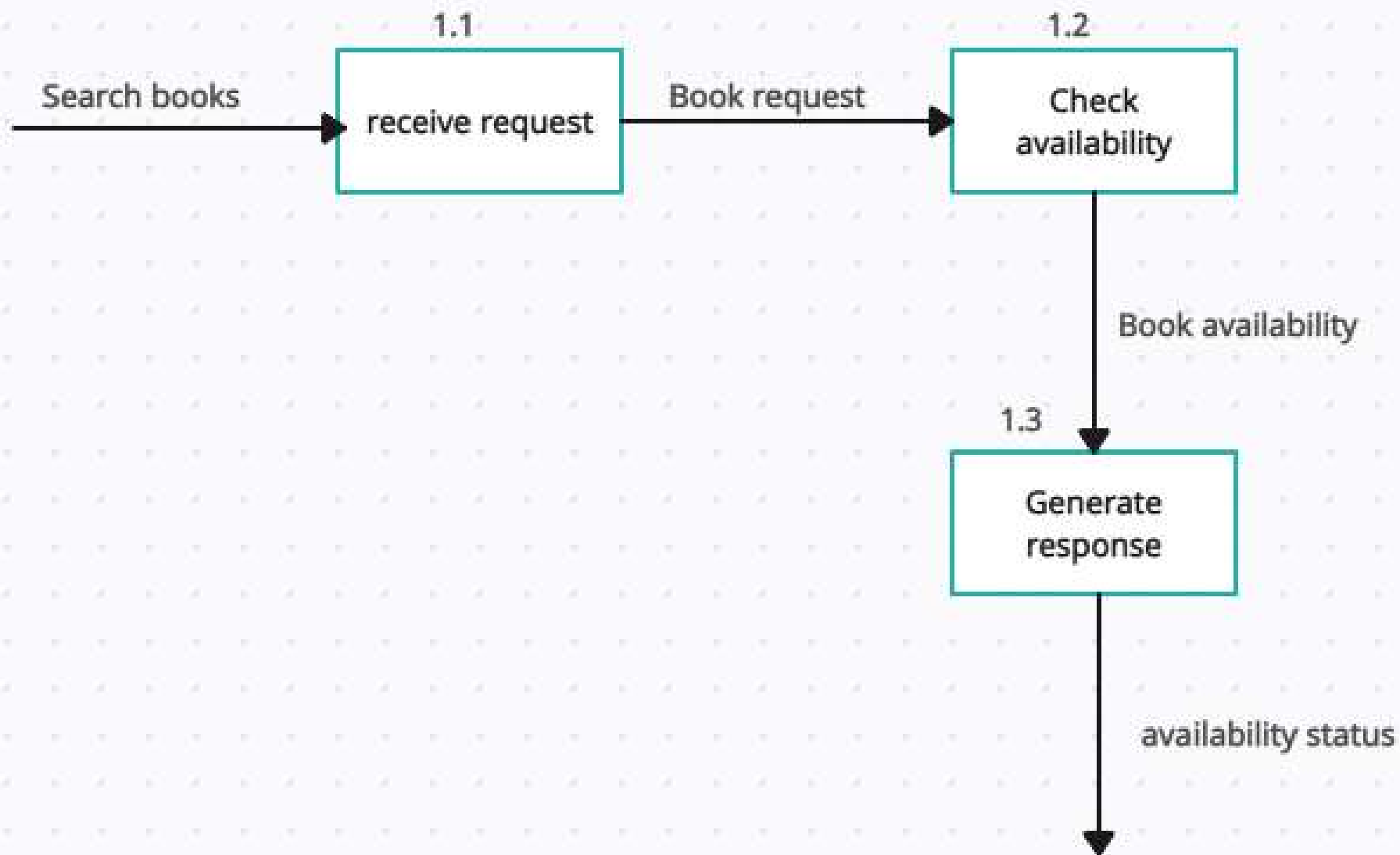


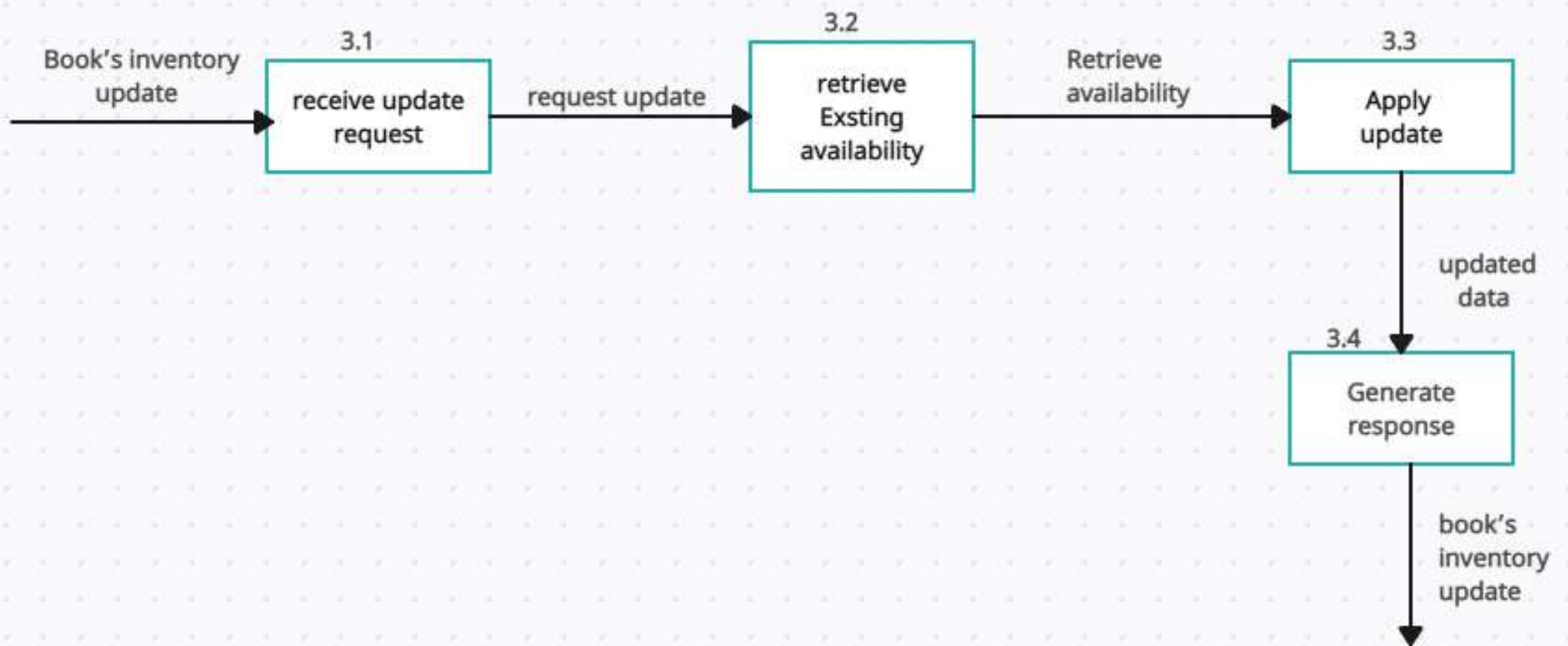
(Book store management system )

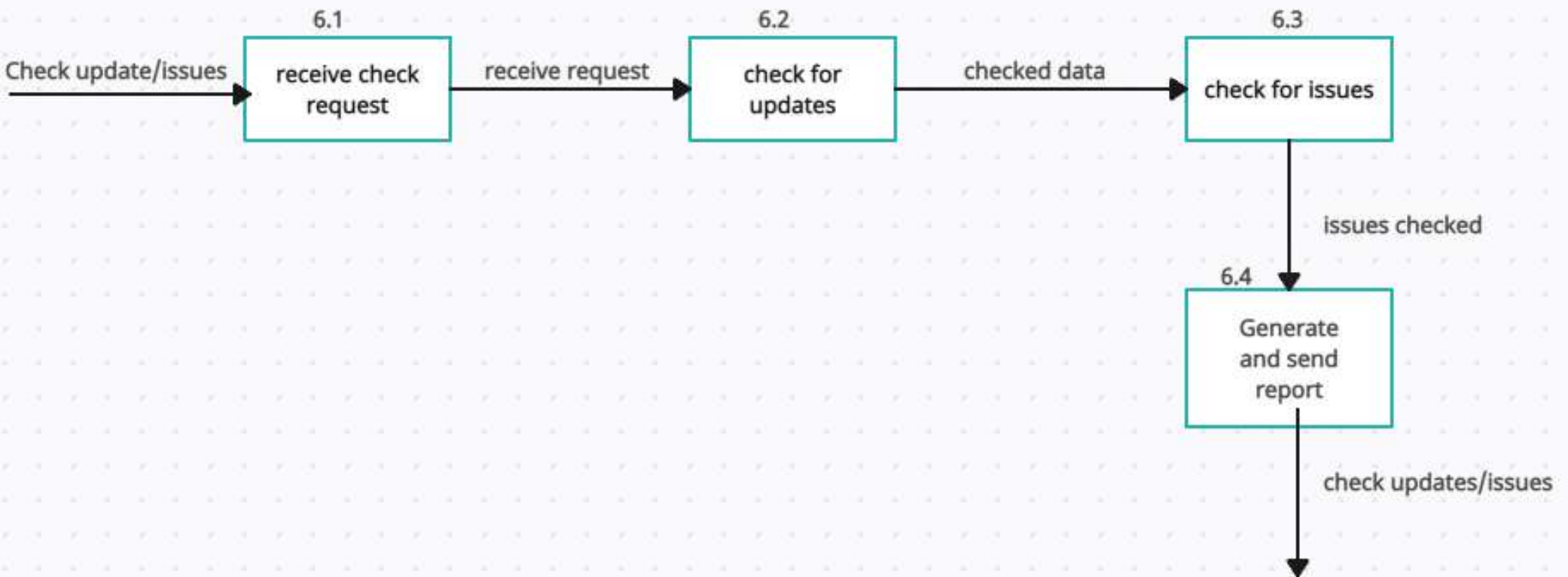
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- Laith ali 200019469
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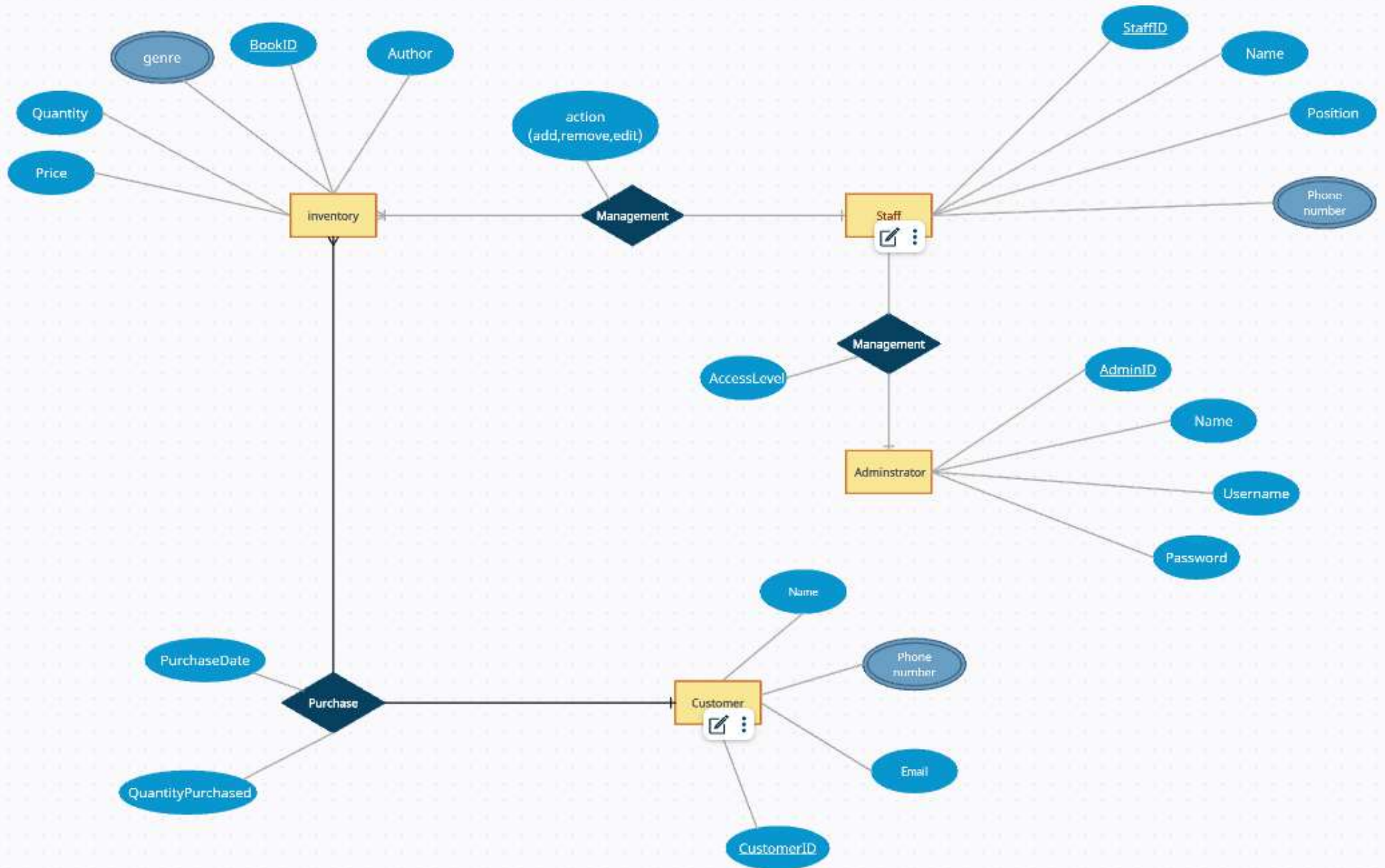


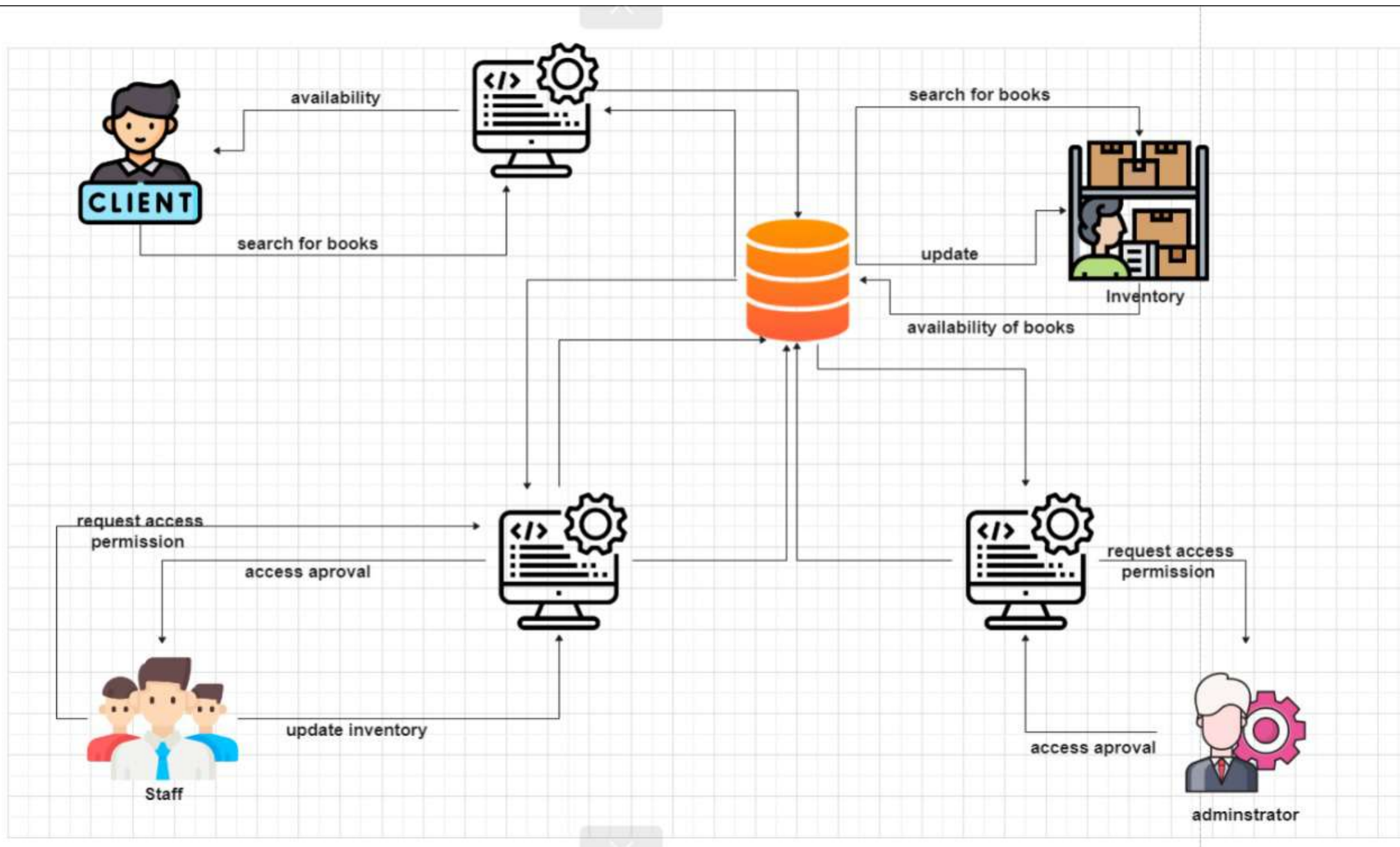






## E-R Diagram of Library Management System







### 3.8.8.1 External Entities

External Entity ref: E1

Customer/Member

Description: user of the system who buys the books

Inputs	Outputs
1. Approval 2. Availability status 3. Receipt	1. Book's details 2. Personal information 3. Search for books 4. Personal information 5. Payment

External Entity ref: E2

Inventory management

Description: Entity that is responsible for managing the stores inventory

Inputs	Outputs
1. Request	1. Availability status
2. Book's details	2. Location information within the store
3. Book's inventory update	

External Entity ref: E3

<b>Staff</b>
--------------

Description: The book store's staff

Inputs	Outputs
1. Request	1. Report
2. Payment	2. Confirmation
3. Access	3. Receipt
	4. Book's inventory update
	5. Check updates/issues

External Entity ref: E4

<b>Administrator</b>
----------------------

Description: A person who take responsibility for controlling the company includes budgeting and client services.

Inputs	Outputs
1. Report activities	1. Permission
2. Check updates/issues	

### 3.8.8.2 Process

Process ref: P1

<b>Request availability</b>
-----------------------------

Description: This process requests the availability of a book in the inventory

Process	Input	Output
Requests the availability of a book in the inventory	1. Search for books 2. Availability status	1. Request 2. Availability status

Process ref: P2

**Request a purchase**

Description: This process requests a purchase of a book

Process	Input	Output
Requests a purchase of a book	1. Book's details 2. Personal information 3. Location information within the store 4. Confirmation	1. Personal information 2. Book's details

Process ref: P3

**Give payments**

Description: This process goes through with the payment procedure

Process	Input	Output
Goes through with the payment procedure	1. Payment	1. Receipt

Process ref: P4

**Give access permission**

Description: This process gives access permission to the staff

Process	Input	Output
Gives access permission to the staff	1. Permission	1. Access

Process ref: P5

Update availability

Description: This process updates the inventory

Process	Input	Output
Updates the inventory	1. Book's inventory update	1. Book's inventory update

Process ref: P6

System check

Description: This process checks the issues and updates the system

Process	Input	Output
Checks the issues and updates the system	1. Check updates/issues	1. Check updates/issues

Process ref: P7

Send report

Description: This process sends the report to the administrator

Process	Input	Output
Sends the report to the administrator	1. Report	1. Report activities

### 3.8.8.3 Data Flow

Data flow ref: F1

#### Search

Description: Send Services that will be displayed to client from Services through process 1.



Source	Destination	Included Data
Customer services	Request availability	Services displayed to client from Service to search book

Data flow ref: F2

#### payment

Description: the photos of services that presented to the client.

Source	Destination	Included Data
Customer	Give payments	Customer product payments

Data flow ref: F3

#### Availability status

Description: Send the data of the client from Clients through process 1.

Source	Destination	Included Data
Request availability	Customer	Conforming product availability

Data flow ref: F4

#### Receipt

Description: Send the E-mail and Password from Clients through process 1.

Source	Destination	Included Data
Give payments	Customer	A receipt to conform customer preaches

Data flow ref: F9

Book's detail

Description for the types of and detail of book's



Source	Destination	Included Data
Customer	Request a purchase	The client search about the book details

Data flow ref: F10

Approval

Description: getting approval from the system to buy the item

Source	Destination	Included Data
Request a purchase	Customer	Getting approval from the <u>system</u>

Data flow ref: F11

Request

Description: requesting to check book availability

Source	Destination	Included Data
Request availability	Inventory management	Check whether book is <u>available</u> or not

Data flow ref: F12

location information

within the store

Description: location of book

Source	Destination	Included Data
Inventory management	Request a purchase	Check location of the item

Data flow ref: F13

book's inventory

update

Description: a response is sent to Clients from process 3.



Source	Destination	Included Data
Update availability	Inventory management	Check what the inventory needs

Data flow ref: F14

Personal  
information

Description: insert of the customer information

Source	Destination	Included Data
Customer	Request a purchase	To put client information

Data flow ref: F15

confirmation

Source	Destination	Included Data
Staff responsibilities	Request a purchase	To conform the purchase

Data flow ref: F16

accesses

Description: Clients send the size through process 4.

Source	Destination	Included Data
Give access permission	Staff responsibilities	Staff system access

Data flow ref: F17

Description: the style of dress or suit is sent from Clients through process 4.

Data flow ref: F22

Check updates  
&issues

Description: check update and issues

Source	Destination	Included Data
Staff responsibilities	System check	To check system

Data flow ref: F23

Report

Description: send reports

Source	Destination	Included Data
Staff responsibilities	Send reports	Send reports from the system

Data flow ref: F24

permission

Description: administrator permission

Source	Destination	Included Data
Administrator	Give access permission	Admin permission

Data flow ref: F25

check update  
and issues

Description: check update and issues

Source	Destination	Included Data
Check system	Administrator	Checking system by Administrator