Library Management System:

1. **Introduction:**

   1.1 Purpose of this document to provide insights on library management system.

   1.2 Scope of this document The document provides description about library management system and it must be completed in 45 days.

   1.3 Overview:

   The system keeps the track of people who have borrowed book with books ID and borrower ID.

2. **General Description:-**

   borrower authorization:- The ~~Library~~ Librarain should enter valid credential and details of the borrower that is borrower ID, Book ID, Book Title, Date of issue, and date of return, and mobile number.

   The system should generate an SMS reminder to the registered mobile number.

3. **Functional requirement:**

   → The librarain must be able to retreive the details of borrower

   → The librarain must be able to register a new user.

   → The system should have record of borrower and the availability of book.

4. Interface requirement :
- The system should have text feild where they can search for a book
- One The details of book like Title, author and description should be seen.

5. Performance Requirement :
The system should not exceed 4 secs of response time and must be able to run on 8gb and 256 gb ram and rom system

6. Design constraints:
User-friendly UI and mongoDB should be used for database.

7. Non-functional requirement
- The system must work on both mac°s and windows.
- Accessible at all time

8. Preliminary Schedule and Budget:
The project must be completed within 45 days.
Total budget is 100000.

30/9/2024

Library Management System :-

OverseaSupplier

DomesticSupplier

Supplier
name: string
location: string
PhNo: string
SupplyBook()
ReceivePayment()
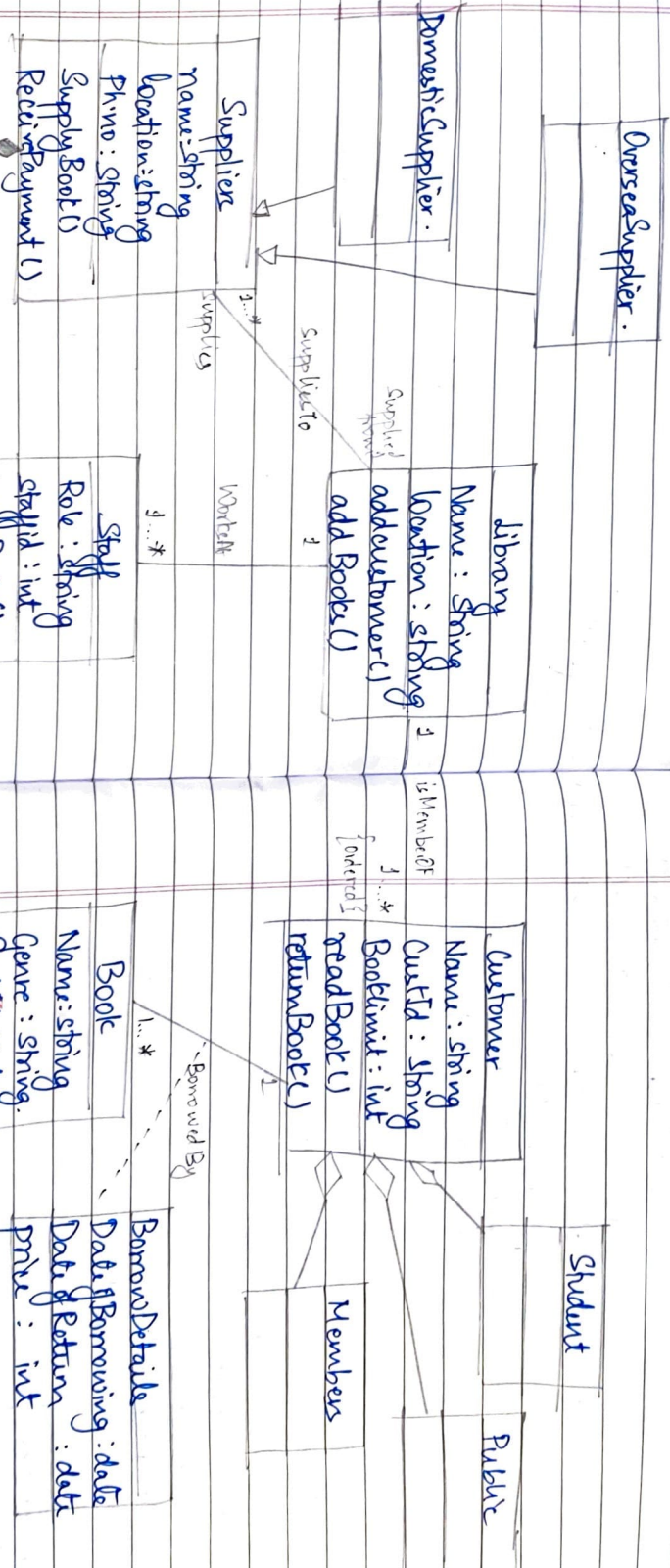
SupplierRepresentative
GSTIN: string
name: string
location: string
BankAcNo: string
ConfirmPayment()
MaintainRecords()

Manager
name: string
phno: string
ManageEmployee()
updateDetails()

Employee
name: string
PhNo: string

Staff
Role: string
staffId: int
issueBook()

library
Name: string
location: string
addcustomer()
add Book()

1...* supplies

supplies to

supplied from

Worker

1...*

1

Customer
Name: string
CustId: string
BookLimit: int
readBook()
returnBook()

Student

Public

isMemberOf

1...*   1

ordered

Members

Book
Name: string
Genre: string
BookId: int
getBorrowed()
getreturned()

1...*

Borrowed By

1

BorrowDetails
Date of Borrowing: date
Date of Return: date
price: int

**enumeration
Genre**
Horror
Drama
Fictional
Biographies
Non-Fictional

staffId: int
issueRate: int
issueBook()

Students

Library
+Name: string
+Location: string
+addcustomer()
+addBooks()

+IsAMemberOf

{ordered}

Customer
+Name: string
+CustId: string
+BookLimit: int
+readBook()
+returnBook()

Public

Members

OverseasSupplier

DomesticSupplier

+SuppliedFrom

+SuppliesTo

+WorksAt

+PresentAt

+BorrowedBy

+Supplies

Suppliers
+Name: String
+Location: String
+Phno: String
+SupplyBook()
+RecivePayment()

Staff
+Role: string
+staffId: int
+issueBook()

Book
+Name: string
+Genre: string
+BookId: int
+issueRate: int
+getBorrowed()
+getReturned()

BorrowDetails
+DateOfBorrowing: date
+DateOfReturn: date
+Price: Int

«enumeration»
Genre
Horror
Diaries
Fictional
AutoBiographies
EngineeringBook
Biographies
Non-Fictional

SupplierRepresenative
+GSTIN;String
+Name: String
+Location;String
+BankAccNo: String
+ConfirmPayemnt()
+MaintainRecords()

Manager
+Name: String
+Phno: String
+ManageEmployes()
+updateDtails()

Employee
+Name: String
+PhNo: String
+Attribute1
+Work()
+IssueBook()
+SortBooks()