Title: Library Management System.

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d library management System is Software that is designed to manage all the functions of a library. It helps librarian to maintain the data base of new books and the books that are borrowed by members along with their due dates

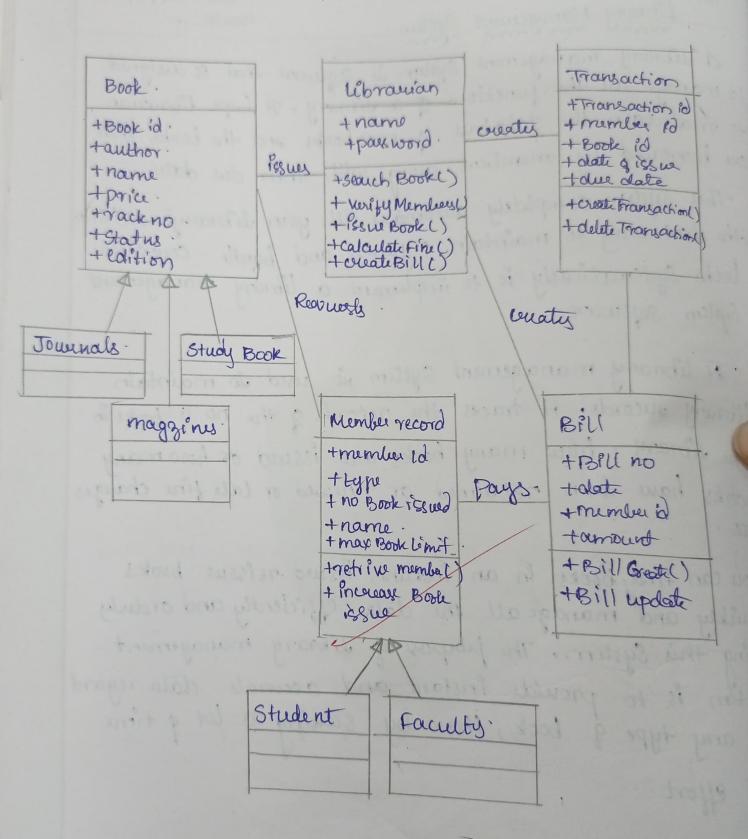
This System completely automates all your library's activities the best way to maintain, organize and handle - countless books systematically is to implement a library management system software.

A library management System is used to maintain library sucords. It traces the records of the no of books in the dibrary, how many books are issued or how many books have been returned or renewed or late fine changes ett.

You can find books in an instant, issued reissue books as wickly and manage all the data efficiently and orderly enjoy this System. The purpose of library management system is to provide instant and accurate data regarding any type of book, there by sawing a lot of time and effort.

A) Name 9 the enquirment: class diagram for library managiment purpose: The purpose of the library management System is to efficiently manage the books, members, and transactions within a library. Contents: \* Book \* mumber \* Transaction · Library. procedure: 1. Firstly identify entities and attributes 2. Establish relationships. 3. After that define multiplicity for a class diagram 4. Draw the class diagram. Inferences; 1. understanding the concepts of clauses 2. Model the class diagram for system. deplications: \* public libraries \* Schools & universities \* Digital libraries.

### class Diagram for library management system



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B) Name of the experiment: Usecase diagram for library management System.

dim: To durign and implement library System through execuse diagram.

purpose: sixed to gather such wirements of a system \* used to get an outside view g a system.

procedure: reased to good be a cooperiorements I dentifying actors to determine who interacts with the System.

got list use cases, identify key actions or functionalities.

\* Draw dires to show which actors participate in each use case.

A Refine and validate.

Interences:

\* Identification que cases

\* Identification q actors

ullare Diagram for more library management system Enarging Rogister member Wen'ty member Leincheder Peshe Kinchidery check Availability of Book librarian Return Book. Member. ( Proclude >> calculate Fine maintaining Books.

Title:

Date : Page No.: 18

c) Name of the experiment: slapuence diagram for library manage -mint System.

To design and implement library management system through dim: seguna diagram.

1. deturnine the actors and objects involved in the interaction proudure !

2. Identify the Interactions between actors and objects

3. Sequence the interactions in chronological order, showing

the flw of messages.

4. Draw the diagram

5. like this way sequence diagram for library management

System is created.

## Sequence diagram for Sibrary management Eyeter

librarian	Book	Member	Transaki
which availab	Ilidy 9 Book()		To have against
2: Book ave			
	and a later		
3: Valida	te member ()	and the same	
	4: check number of Bo	oke (esude)	
The state of the	5: Book	can be found	item -
19 19 1000		create>>	as discount of
100000		7:1	3dd member Lat
8: update	Book Status()		add members book distails()
		(3) × (3)	bas was
	9: updat	te member monde)	
		the continue	
		The second	

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D) many of the experiment: collaboration diagram for library management system.

dim:-To design and implement library management system through collaboration diagram

procedure;

1. Determine the main objectes a or entities in the systems such as book, member, and dibrarian

2. Identify the interactions between there objects

3. Draw the diagram

4. Refine and validate

Purpose;

1. to capture dynamic behaviour q a system. 2. To discuibe the message flow in the system 3. To disvuible interaction among abjections

Contents:

\* objects

#lines

\*messages"

collaboration diagram for library management

Book 5. Calculate fine 8. update book 1: validate member. Status 2. get number type 9. update member record Librarian Member 4: Moreotery 6: add fine and member ditails. 2. get Pssu 7. fine paid. details Bill. Transaction

Ricord

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Drame of Experiment: Starte chart diagram for libratory management System.

dim:

To disign and implement library system through statichast diagram.

purpost!

1. To model dynamic aspects 9 a system.

2. To model lifetime g a reactive System

procedure:

- 1 deturine the main objects or entities in the System that have distinct states
- 2. Identify the possible state for each objects and the events that trigger transactions between states
- 3. Draw states and Transitions.
- 4. Refine and validate
- 5. In this way State chart diagram for library management System is created i

Staut Student / Haculty loges user id and paus word Seauch Book ... found Book request Book. Rearmet Librarian For Books Reuine Book. pay fine (ifany) Pay the fine Profile update and signout.

Title:

Date: Page No.: 21

1) Name 3 Enperiment: Activity diagram for library management System.

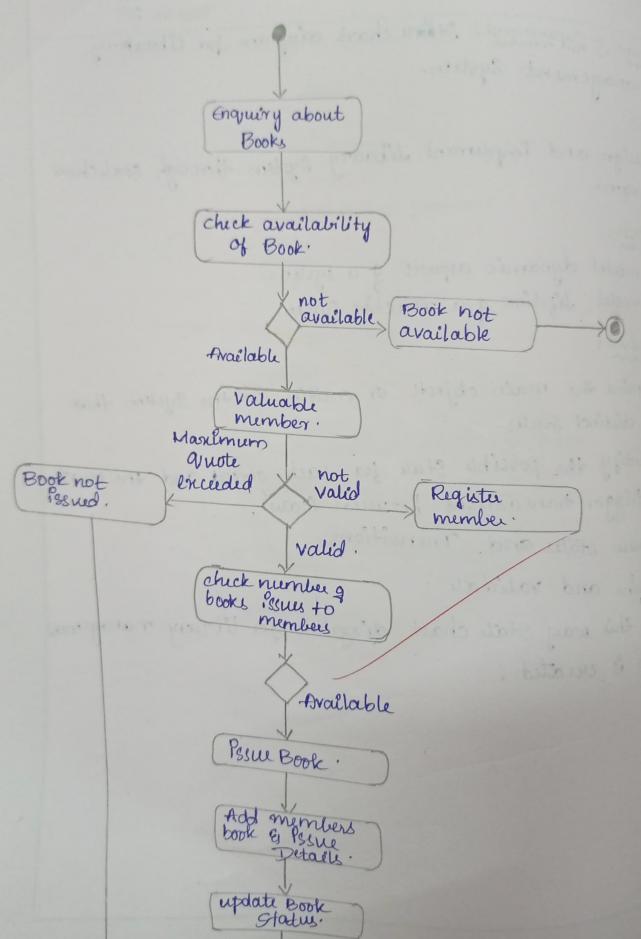
dim: To dusign and implement library management system through activity diagram

contents:

- & Initial | Final state.
- \* Activity
- \* Forke & join
- \* Branching
- \* Swimlanes

proadure:

- 1. First instial State & created.
- 2. Identifying the activities
- 3. draw the activities
- 4 connect activities
- 5. includes decision points
- 6. use forking & joining wherever necessary



Date :

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Dyane g Experiment: component diagram for library management system.

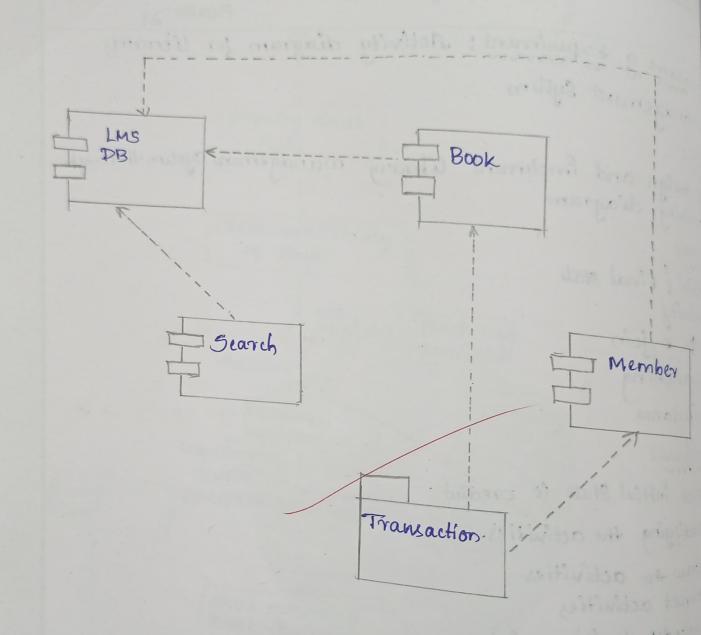
To disign and implement component diagram for library system through component diagram.

# contents!

- \* congronents
- \* interfaces
- \* Relationships.

#### Procedure:

- 1. First user. component is created.
- 2. library system package is created.
- 3. In A various components created
- 4. Association relationships es established between user and other components.



towns & Johnson where meeting

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H) Name of Experiment: Deployement diagram for Library management system.

To design and implement deployment diagram for library management System through deployment diagrams.

purpose:

sused to visualize the topology of the physical component of a System.

2 used to describe the Static deployment view q a system 3. understanding system deployment

4. Identifying resource requirements

5. Identifying communication paths

6. Support for system planning

contents:

\* Nodes

\* Dependency 9 association relationships. Procedure:

1. First use node is created

2. Various nodes web browser, user interface, member et créates 3. Association relationship is established between use & Other people nodes

4. Dependency is established

## Deployment Diagram for library management system

