

Surabhi Ojha

And

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## Database:- Library Management System

Table : - Book

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
Bookid	varchar(20)	Primary key
BookName	varchar(20)	Not Null
DepartmentId	int(7)	Foreign Key
Cost	float(4)	Not Null

Table :- Department

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
DepartmentId	int(7)	Primary key
DepartmentName	varchar(20)	Not Null

Table :- Publisher

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
PublisherId	int(7)	Primary key
PublisherName	varchar(20)	

PublisherAddress	varchar(30)	
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Table :- PublisherPnoAndEmail

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
PublisherId	int(10)	Primary key
Pno	int(10)	Candidate key - Unique
Email	varchar(30)	Candidate key- Unique

Table:- Author

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
AuthorId	int(7)	Primary Key
AuthorName	varchar(30)	Not Null

Table:- BookAuthorRelationship

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
AuthorId	int(7)	Not Null
Bookid	varchar(20)	Not Null

Table:- BookPublisherRelationship

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
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PublisherId	int(7)	Not Null
Bookid	varchar(20)	Not Null

Table:- User

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
Userid	int(10)	Primary key
Name	varchar(20)	Not Null
Address	varchar(30)	
AccountStatus	int(1)	Not Null

Table:- Librarian

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
LibrarianId	int(10)	Primary key
Name	varchar(20)	Not Null
Address	varchar(30)	
AccountStatus	int(1)	Not Null

Table:- Admin

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
AdminId	int(10)	Primary key
Name	varchar(20)	Not Null
Address	varchar(30)	

AccountStatus	int(1)	Not Null
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**Table:- PhoneNumberAndEmail**

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
UserOrLibraianOrAdminId	int(10)	Primary key
Pno	int(10)	Candidate key - Unique
Email	varchar(30)	Candidate key- Unique

**Table:- Authentication**

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
LibraianOrAdminId	int(10)	Primary key
Password	varchar(30)	Not Null
UserTypeId	int(1)	Not Null

UserTypeId :- 1 for Admin  
2 for Librarian

**Table:- BookIssue**

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
IssueId	int(10)	Primary Key
Bookid	varchar(20)	Foreign Key
Userid	int(10)	Foreign Key

BorrowDate	date	Not Null
ScheduledReturnDate	date	Not Null

**Table:- BookReturn**

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
IssueId	int(10)	Primary Key
ActualReturnDate	date	Not Null
Fine	int(4)	

**Table : - BookLostOrSold**

<u>Attributes</u>	<u>Datatype</u>	<u>Constraints</u>
Bookid	varchar(20)	Foreign Key
Userid	int(10)	Foreign Key
BookLostSold	int(1)	Not Null
Amount	int(4)	Not Null

BookLostDamaged:- If sold 1  
If lost 2