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Cse - E

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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) | |
| Department | varchar(20) | Not Null |
| Cost | float(4) | Not Null |
| PublisherId | int(7) | |
| BookStatus | int(1) | Not Null |

BookStatus - 0 if the book is lost or sold
1 if the book is still in use

Table - Publisher

| <u>Attributes</u> | <u>Datatype</u> | <u>Constraints</u> |
|-------------------|-----------------|--------------------|
| PublisherId | int(7) | Primary key |
| PublisherName | varchar(20) | |
| PublisherPno | int(10) | Not null |
| PublisherAddress | varchar(30) | |

Table:- Author

| <u>Attributes</u> | <u>Datatype</u> | <u>Constraints</u> |
|-------------------|-----------------|--------------------|
| AuthorId | int(7) | Primary Key |
| AuthorName | varchar(30) | |

Table:- BookAuthorRelationship

| <u>Attributes</u> | <u>Datatype</u> | <u>Constraints</u> |
|-------------------|-----------------|--------------------|
| AuthorId | 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 |
| Pno | int(10) | Candidate key - Unique |
| Email | varchar(30) | Candidate key- Unique |
| Address | varchar(30) | |
| NoOfBookHolding | int(1) | Not Null |
| AccountStatus | int(1) | Not Null |

NoOfBookHolding :- No of books holding presently can be between 0 - 4(or based on library)

AccountStatus : - If the account exists 1
If the account is closed 0

Table:- BookIssue

| <u>Attributes</u> | <u>Datatype</u> | <u>Constraints</u> |
|---------------------|-----------------|--------------------|
| Bookid | varchar(20) | Foreign Key |
| Userid | int(10) | Foreign Key |
| BorrowDate | date | Not Null |
| ScheduledReturnDate | date | Not Null |
| ActualReturnDate | date | |
| Fine | int(4) | |
| BookIssueStatus | int(1) | |

BookIssueStatus:- If book returned 0
If holding Book 1

Table : - BookLostOrDamagedOrSold

| <u>Attributes</u> | <u>Datatype</u> | <u>Constraints</u> |
|---------------------|-----------------|--------------------|
| Bookid | varchar(20) | Foreign Key |
| Userid | int(10) | Foreign Key |
| BookLostDamagedSold | int(1) | Not Null |

| | | |
|-----------|--------|----------|
| FinePrice | int(4) | Not Null |
|-----------|--------|----------|

BookLostDamaged:- If Damaged 0
If sold 1
If lost 2