KNIGA
LIBRARY

LIBRARY MANAGEMENT SYSTEM

18BCE245

18BCE259

RELATIONAL MODEL

MEMBERS TABLE:

Field	Data Type	Description	Constraints
Member_id	INT	Unique Id to each member.	PRIMARY KEY
Member_info (First_Name)	Varchar (30)	First Name of the member	NOT NULL
Member_info (Last_Name)	Varchar(150)	Last Name of the member	NOT NULL
Mail_id	Varchar (256)	Email of member.	NOT NULL
Contact No	INT	Contact no of the member.	NOT NULL
Address(Street)	TEXT	Street Address of the member.	NOT NULL
Address(State)	TEXT	State Address of the member.	NOT NULL
memb_type	Varchar(5)	Type of member	NOT NULL CHECK value in (BTECH, MTECH, _PHD_,FCLT_) , length = 5
fine	INT	Total Fine till today of a member.	NOT NULL DEFAULT 0
Expiry_date	DATETIME	Membership expiry date of member.	NOT NULL

BOOK_HOLD TABLE:

Field	Data Type	Description	Constraints
Member_id	INT	Unique Id to each member.	Foreign Key references to MEMBERS
Book_ID	INT	Unique Id to each book.	Foreign Key References to BOOK
Res_Date	DATETIME	Reservation date of particular book by particular member.	NOT NULL
Priority	INT	Priority of a Hold.	NOT NULL
Available	SMALLINT	Boolean for availability of book	DEFAULT 0 Min 0 Max 1

Primary Key for the table above is (**Member_id, Book_ID**)

BOOK_COPY TABLE:

Field	Data Type	Description	Constraints
Book_ID	INT	Unique Id to each book.	PRIMARY KEY
ISBN	INT	Uniquely identifies a book universally	FOREIGN KEY References to BOOK

BOOK TABLE:

Field	Data Type	Description	Constraints
ISBN	INT	Uniquely identifies a book universally	PRIMARY KEY CHECK length = 10 or 13
Title	Varchar (32)	Title of a book.	NOT NULL
Publisher	INT	Publisher of a book.	FOREIGN KEY Referenced to PUBLISHER
Price	INT	Price of a book.	NOT NULL
Availability	INT	Availability of Book (yes/No).	NOT NULL

AUTHOR TABLE:

Field	Data Type	Description	Constraints
Author_ID	INT	Unique Id to each author.	PRIMARY KEY
Author_Name	Varchar (32)	Name of Author.	NOT NULL

BOOK_AUTHOR TABLE:

Field	Data Type	Description	Constraints
Author_ID	INT	Unique Id to each author.	FOREIGN KEY References AUTHOR
Book_ID	INT	Name of Author.	FOREIGN KEY References BOOK

Primary Key for the table above is (**Author_ID, Book_ID**)

PUBLISHER TABLE:

Field	Data Type	Description	Constraints
Pub_ID	INT	Unique Id to each Publisher.	PRIMARY KEY
Pub_Name	Varchar (32)	Name of Publisher.	NOT NULL
Address(Street)	TEXT	Street Address of the member.	NOT NULL
Address(State)	TEXT	State Address of the member.	NOT NULL

BORROWER TABLE:

Field	Data Type	Description	Constraints
Book_cp_id	INT	Unique number to identify a book copy in Library	PRIMARY KEY
Member_id	INT	Borrower	FOREIGN KEY References MEMBERS
Due_Date	DATETIME	Due date of a particular book.	NOT NULL
Res_Date	DATETIME	Reservation date of a book.	NOT NULL