Library Management System

Library Management System. It keeps track of all information about books in the library, their cost, status and total number of books available in the library.

- Created **Database** named **Library**

    Created Tables

- **Tables Named**

    ➢ **Branch**

        ▪ Attributes

```
7      -- CREATING A DATABASE NAMED LIBRARY-----
8
9 •    CREATE DATABASE LIBRARY;
10
11     ----------------------------------------------------
12     -- CREATE TABLES FOR LIBRARY
13     ----------------------------------------------
14     -----------------------------
15     -- 1. TABLES FOR BRANCH
16     -----------------------------------
17
18 • ⊖ CREATE TABLE BRANCH (
19       BRANCH_NO INT PRIMARY KEY,
20       MANAGER_ID VARCHAR(30),
21       BRANCH_ADRESS VARCHAR(200),
22       CONTACT_NO  VARCHAR(20)
23     );
24
25     ----------------------------------------------
```

Table Branch Having attributes of **BRANCH_NO** with Data type of int and it is assigned as a primary key.

MANAGER_ID with a Data type of varchar.

BRANCH_ADRESS with a Data type of varchar.

CONTACT_NO with a Data type of varchar.

- **Inserting Values to Tables Branch**

```sql
-- INSERTING VALUES INTO TABLE BRANCH
-------------------------------------------------
```

- INSERT INTO BRANCH (BRANCH_NO,MANAGER_ID,BRANCH_ADRESS,CONTACT_NO) VALUES
  (249,'TS4321','ROSEWOODSTREET','0219374901'),
  (239,'YS0971','7TH AVENUE','9128537802'),
  (123,'ZQ2389','REGO PARK','0435619031'),
  (789,'KW9812','BROOKYLN','8213765400'),
  (901,'DQ1292','ELMONT','1239093728'),
  (821,'PW4321','ADRIAN EVE','6723190021'),
  (021,'RE9021','BAXTER ST','231782981'),
  (912,'EW7718','CARDER RD','728391023'),
  (334,'FS1223','ASTOR PI','2345190673'),
  (563,'TU3456','DOVER ST','6645328133'),
  (443,'AS0013','FRANKLIN ST','9923457788'),
  (345,'OP1290','GRAND ST','8086361891'),
  (299,'LB9340','MORRIS LANE','7328901877');

- SELECT * FROM BRANCH;

> **Employee**

- Attributes

```sql
-------------------------------
-- 2.TABLES FOR EMPLOYEE
-------------------------------

CREATE TABLE EMPLOYEE (
    EMP_ID VARCHAR(30) PRIMARY KEY,
    EMP_NAME VARCHAR(40),
    POSITION VARCHAR(30),
    SALARY VARCHAR(10),
    BRANCH_NO INT,
    FOREIGN KEY (BRANCH_NO)
        REFERENCES BRANCH (BRANCH_NO)
);
```

Table EMPLOYEE having attributes of **EMP_ID** datatype of Varchar and it is assigned as a primary key.

EMP_NAME with datatype of Varchar

POSITION with datatype of Varchar

SALARY with datatype of Varchar

BRANCH_No with datatype of Integer (INT) and it is assigned as a foreign key (**BRANCH_NO**) and References **BRANCH(BRANCH_NO)**

- **Inserting Values to Tables Employee**

```
-- INSERTING VALUES INTO TABLE EMPLOYEE
------------------------------------------------

INSERT INTO EMPLOYEE VALUES

('PDG892', 'DAVID LEE', 'LIBRARY TECHNICIAN', '45,000', 901),
('JAG617', 'SOPHIA PAUL', 'LIBRARIAN', '76,000', 299),
('FAU919', 'JENNY JOHN', 'ASSISTANT LIBRARIAN', '45,000', 821),
('DAW881', 'MICHAEL BAY', 'IT SUPPORT', '39,000', 334),
('ERY919', 'RYAN PAUL', 'INFORMATION SPECIALIST', '45,000', 563),
('WKP322', 'DANIEL CRAG', 'HUMAN RESOURCE', '87,000', 912),
('UKF998', 'TIM JAME', 'LIBRARIAN', '56,000', 443),
('PKT189', 'MARY MARIA', 'LIBRARIAN TRAINEE', '35,000', 299),
('TYU656', 'MATHEW WADE', 'HUMAN RESOURCE', '42,000', 821),
('KIY887', 'OLIVER JADE', 'INFORMATION SPECIALIST', '38,000', 123),
('PGF456', 'AIDEN AGIN', 'IT SUPPORT', '23,000', 789),
('RTY434', 'ALDRIN JOY', 'LIBRARIAN', '45,000', 239),
('STR309', 'JESSE RYDER', 'LIBRARIAN', '42,000', 821),
('ASD732', 'SHAUN TAIT', 'HUMAN RESOURCE', '33,500', 443),
('ASV328', 'MITCH MARSH', 'LIBRARY ASSISTANT', '58,000', 123);

INSERT INTO EMPLOYEE  VALUES
('ZFT190', 'JOHN PETER', 'LIBRARY ASSISTANT', '55,000', 249);
```

➢ **Books**

- Attributes

```
--------------------------------
-- 3.TABLES FOR BOOKS
--------------------------------

CREATE TABLE BOOKS (
ISBN VARCHAR(100) PRIMARY KEY,
BOOK_TITLE VARCHAR(200),
CATEGORY VARCHAR(100),
RENTAL_PRICE VARCHAR (50),
STATUS ENUM ('YES BOOK AVAIL','NO BOOK AVAIL'),
AUTHOR VARCHAR (100),
PUBLISHER VARCHAR(100)
);
```

Table **BOOKS** having attributes of **ISBN** Datatype of Varchar and it is assigned as a primary key.

BOOK_TITLE Datatype of Varchar,

CATEGORY Datatype of Varchar ,

RENTAL_PRICE Datatype of Varchar and **STATUS** (**ENUM**),

AUTHOR Datatype of Varchar,

PUBLISHER Datatype of Varchar.

- **Inserting Values to Tables BOOKS**

```
-----------------------------------------------
-- INSERTING VALUES INTO TABLE BOOKS
-----------------------------------------------
INSERT INTO BOOKS (ISBN,BOOK_TITLE,CATEGORY,RENTAL_PRICE,STATUS,AUTHOR,PUBLISHER) VALUES
('978-1-60309-502-0','THE HUNGER GAME','FICTION','20/W','YES BOOK AVAIL','SUZANNE COLLINS','SCHOLIATIC PRESS'),
('109-7-81408-855-6','HARRY POTTER AND THE ORDER OF THE PHOENIX','FANTASY','25/W','YES BOOK AVAIL','JK ROWLING','BLOOMSBURY(UK)'),
('978-1-50329-056-3','PRIDE AND PREJUDICE','CLASSIC','20/W','YES BOOK AVAIL','JANE AUSTEN','T EGERTON'),
('978-8-12913-742-5','MAKING INDIA AWESOME','NOVEL','23/W','YES BOOK AVAIL','CHETAN BHAGAT','RUPA PUBLICATIONS'),
('978-8-12914-214-6','ONE INDIAN GIRL','NOVEL','23/W','YES BOOK AVAIL','CHETAN BHAGAT','RUPA PUBLICATIONS'),
('076-4-10690-989-5','THE NAKED TRIANGLE','AUTOBIOGRAPHY','30/W','YES BOOK AVAIL','BALWANT GARGI','VIKAS PUBLISHING HOUSE'),
('978-0-33037-617-4','FLUKE','HORROR','15/W','NO BOOK AVAIL','JAMES HERBERT','PAN BOOKS'),
('05-5329-340-0','ASIMOV','SCIENCE FICTION','20/W','YES BOOK AVAIL','ISSAC ASIMOV','BANTAM BOOKS'),
('97-8185-326-726-0','LADY AUDLEYS SECRET','LITERATURE','25/W','YES BOOK AVAIL','MARY ELIZABETH BRADEN','WORDS WORTH CLASSIC'),
('19-0528-729-1','JOHNNY DEPP','FILM','20/W','NO BOOK AVAIL','DENIS MEIKLE','REYNOLDS AND HERN'),
('02-4051-034-8','NIKON FE FM EM','PHOTOGRAPHY','20/W','YES BOOK AVAIL','CLYDE REYNOLDS','FOCAL PRESS LIMITED'),
('07-1344-774-5','INDIAN INDEPENDENCE','HISTORY','20/W','YES BOOK AVAIL','STEPHEN ASHTON','BASTFORD ACADEMIC AND EDUCATIONAL'),
('978-03-4547-609-8','THE GUNS OF AUGUST','HISTORY','25/W','YES BOOK AVAIL','BARBARA W TUCHMAN','MACMILLAN'),
('978-00-6231-609-7','SAPIENS','NON-FICTION','30/W','YES BOOK AVAIL','YUVAL NOAH HARARI','RANDOM HOUSE'),
('978-01-9503-863-7','BATTLE CRY FOR FREEDOM','HISTORY','25/W','NO BOOK AVAIL','JAMES M MCPHERSON','OXFORD UNIVERSITY PRESS'),
('14-5162-665-0','CATCH-22','POLITICAL','25/W','YES BOOK AVAIL','JOSEPH HELLER','SIMON AND SCHUSTER'),
('17-8396-602-5','THE POWER OF GEOGRAPHY','GEOPOLITICS','20/W','YES BOOK AVAIL','TIM MARSHALL','ELLIOT AND THOMSON'),
('81-3160-716-8','EVOLUTION OF GEOGRAPHICAL THOUGHT','GEOPOLITCS','25/W','NO BOOK AVAIL','MAJID HUSSAIN','RAWAT PUBLISH');
```

> **Customer**

- Attributes

```
-------------------------------
-- 4.TABLES FOR CUSTOMER_LIBRARY
-------------------------------

CREATE TABLE CUSTOMER_LIBRARY (
    CUSTOMER_ID VARCHAR(50) PRIMARY KEY,
    CUSTOMER_NAME VARCHAR(100),
    CUSTOMER_ADDRESS VARCHAR(200),
    REG_DATE DATE
);
```

Table **CUSTOMER _LIBRAY** having attributes of **CUSTOMER_ID Datatype** of Varchar and it is assigned as a primary key.

CUSTOMER_NAME Datatype of Varchar,

CUSTOMER_ADRESS Datatype of Varchar,

REG_DATE Datatype of **DATE**

- **Inserting Values to Tables CUSTOMER _LIBRAY**

```sql
-------------------------------------------------------
-- INSERTING VALUES INTO TABLE CUSTOMER_LIBRARY
-------------------------------------------------------
INSERT INTO CUSTOMER_LIBRARY (CUSTOMER_ID,CUSTOMER_NAME,CUSTOMER_ADDRESS,REG_DATE) VALUES
('D5091','JOHN PERERA','ROSE VILLA 5TH STREET NEWYORK CITY','1992-01-21'),
('K9086','KENNEDY BAY','NO;21 WEST AVENUE CALIFORNIA','1997-02-12'),
('T1271','MICHALE JHONY','FLAT NO;28 SECOND AVENUE TEXAS','1988-03-11'),
('Y8907','JACK DANIEL','MICHALE STREET NO;12 ,BOSTON','1996-04-02'),
('R8765','TIM MARSH','HOUSE NO;123 NORTH AVENUE LOSANGELS','1999-01-21'),
('Q3456','MARIA TOM','BARD HNO;787 WEST STREET NEWYORK CITY','2001-10-31'),
('E5678','TONY FRANCIS','FLAT NO ;321 VICTORIA STREET AUSTON','2002-11-23'),
('R2342','ANGELO MATHEWS','SWEET HOME NORTH END KENTUKY','1996-03-22'),
('Y9232','FERNANDO GOMEZ','MAXON 3RD STREET TOKYO','1987-11-11'),
('U2319','ANGELINE BEN','ALIA WESTCOAST JUNCTION TOKIO','1993-12-30'),
('K6633','ANNA BEN','BEN HOME DOOR NO;27 CHICAGO','1996-09-22');

INSERT INTO CUSTOMER_LIBRARY VALUES
('P3456','BRET JOHN','HEAVEAN Y STREET CALIFORNIA','2024-10-12'),
('T1289','MATHEW PHILIP','GREEN HOUSE PHILADELPHIA','2023-09-17');
```

➢ **Issue Status**

▪ Attributes

```
------------------------------
-- 5.TABLES FOR ISSUE STATUS
------------------------------

CREATE TABLE ISSUESTATUS (
ISSUE_ID VARCHAR(50) PRIMARY KEY,
ISSUED_CUST VARCHAR (50) ,
FOREIGN KEY (ISSUED_CUST) REFERENCES CUSTOMER_LIBRARY(CUSTOMER_ID),
ISSUED_BOOK_NAME VARCHAR(100),
ISSUE_DATE DATE,
ISBN_BOOK VARCHAR(50),
FOREIGN KEY (ISBN_BOOK) REFERENCES BOOKS(ISBN)
);
```

Table **ISSUESTATUS** having attributes of **ISSUE_ID** Datatype of Varchar and it is assigned as a primary key.

ISSUED_CUST Datatype of Varchar, and it is assigned as foreign key (**ISSUED_CUST**) References **CUSTOMER_LIBRARY**(**CUSTOMER_ID**)

ISSUED_BOOK_NAME Datatype of Varchar,

ISSUE_DATE Datatype of **DATE**

ISBN_BOOK Datatype of Varchar and assigned as Foreign Key (ISBN_BOOK) References **BOOKS(ISBN)**

- **Inserting Values to Tables ISSUESTATUS**

```sql
INSERT INTO ISSUESTATUS  VALUES
('ISD2234','D5091','THE HUNGER GAME','1993-08-11','978-1-60309-502-0'),
('ISD1321','K9086','PRIDE AND PREJUDICE','1997-02-15','978-1-50329-056-3'),
('ISD2323','T1271','THE NAKED TRIANGLE','1988-05-10','076-4-10690-989-5'),
('ISD1290','R8765','THE GUNS OF AUGUST','1999-01-21','978-03-4547-609-8'),
('ISD9031','K6633','CATCH-22','1998-10-12','14-5162-665-0'),
('ISD2874','T1271','SAPIENS','1988-03-11','978-00-6231-609-7'),
('ISD3678','R8765','INDIAN INDEPENDENCE','1999-01-21','07-1344-774-5'),
('ISD6547','U2319','EVOLUTION OF GEOGRAPHICAL THOUGHT','1993-12-30','81-3160-716-8'),
('ISD8291','D5091','BATTLE CRY FOR FREEDOM','1993-01-21','978-01-9503-863-7'),
('ISD1002','Y9232','NIKON FE FM EM','1989-11-12','02-4051-034-8'),
('ISD1235','Q3456','THE GUNS OF AUGUST','2001-12-31','978-03-4547-609-8'),
('ISD7658','Y9232','THE POWER OF GEOGRAPHY','1990-10-22','17-8396-602-5'),
('ISD2221','D5091','ONE INDIAN GIRL','2020-09-20','978-8-12914-214-6'),
('ISD3200','Y8907','BATTLE CRY FOR FREEDOM','1999-06-23','978-01-9503-863-7'),
('ISD2991','U2319','THE GUNS OF AUGUST','1998-02-10','978-03-4547-609-8'),
('ISD4278','E5678','HARRY POTTER AND THE ORDER OF THE PHOENIX','2023-06-12','109-7-81408-855-6'),
('ISD7821','K9086','FLUKE','2021-10-23','978-0-33037-617-4'),
('ISD9123','Y9232','MAKING INDIA AWESOME','2020-07-20','978-8-12913-742-5'),
('ISD1890','R2342','SAPIENS','2023-06-21','978-00-6231-609-7'),
('ISD6543','Q3456','PRIDE AND PREJUDICE','2021-08-11','978-1-50329-056-3'),
('ISD2112','T1271','LADY AUDLEYS SECRET','1996-09-12','97-8185-326-726-0'),
('ISD3423','Y9232','MAKING INDIA AWESOME','1992-03-12','978-8-12913-742-5');
```

- **Return Status**

- Attributes

```sql
-------------------------------
-- 6.RETURN STATUS
-------------------------------

CREATE TABLE RETURN_STATUS(
RETURN_ID VARCHAR(50) PRIMARY KEY,
RETURN_CUST VARCHAR(200),
RETURN_BOOK_NAME VARCHAR(200),
RETURN_DATE DATE,
ISBN_BOOK2 VARCHAR(50),
FOREIGN KEY (ISBN_BOOK2) REFERENCES BOOKS(ISBN)
);
```

Table **RETURN_STATUS** having attributes of **RETURN_ID** Datatype of Varchar and it is assigned as a primary key.

RETURN_CUST Datatype of varchar

RETURN_BOOK_NAME Datatype of varchar

RETURN_DATE Datatype of Date

ISBN_BOOK2 Datatype of varchar and assigned as Foreign key (**ISBN_BOOK2**) Reference **BOOKS(ISBN)**

- **Inserting Values to Tables RETURN_STATUS**

```
-----------------------------------------------------
-- INSERTING VALUES INTO TABLE RETURN_STATUS
-----------------------------------------------------

INSERT INTO RETURN_STATUS VALUES
('RTB2345','JOHN PERERA','THE HUNGER GAME','1993-09-11','978-1-60309-502-0'),
('RTE2921','KENNEDY BAY','PRIDE AND PREJUDICE','1997-03-15','978-1-50329-056-3'),
('RTA0345','MICHALE JHONY','THE NAKED TRIANGLE','1988-06-11','076-4-10690-989-5'),
('RTE2890','TIM MARSH','THE GUNS OF AUGUST','1999-02-10','978-03-4547-609-8'),
('RTW3802','TONY FRANCIS','HARRY POTTER AND THE ORDER OF THE PHOENIX','2023-08-12','109-7-81408-855-6'),
('RTB3378','ANGELO MATHEWS','SAPIENS','1996-06-22','978-00-6231-609-7'),
('RTV7219','ANNA BEN','CATCH-22','1998-11-12','14-5162-665-0'),
('RTG8904','MARIA TOM','PRIDE AND PREJUDICE','2021-08-19','978-1-50329-056-3'),
('RTH3901','ANGELINE BEN','CATCH-22','1998-10-12','14-5162-665-0');
```