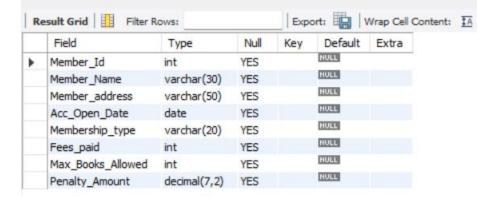
DDL Assignment 2

Task / Problems:

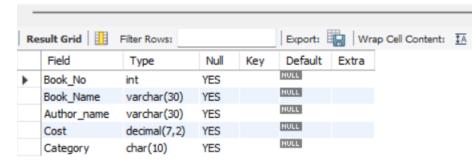
```
1) Create the table Member, Books and Issue without any constraints as
mentioned in the schema description above.
CREATE TABLE Member (
  Member_Id INT,
  Member_Name VARCHAR(30),
  Member_address VARCHAR(50),
  Acc_Open_Date DATE,
  Membership_type VARCHAR(20),
  Fees_paid INT,
  Max_Books_Allowed INT,
  Penalty_Amount DECIMAL(7,2)
);
CREATE TABLE Books (
  Book_No INT,
  Book_Name VARCHAR(30),
  Author_name VARCHAR(30),
  Cost DECIMAL(7,2),
  Category CHAR(10)
);
CREATE TABLE Issue (
  Lib_Issue_Id INT,
  Book_No INT,
  Member_Id INT,
  Issue_Date DATE,
  Return_date DATE
);
```

2) View the structure of the tables.

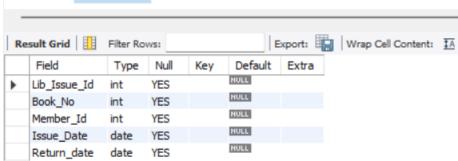




6 • desc books;



8 • desc issue;



3) Drop the Member table

drop table member;

4) Create the table Member again as per the schema description with the

following constraints.

a. Member_Id - Primary Key

b. Membership_type - 'Lifetime',' Annual', 'Half Yearly',' Quarterly'

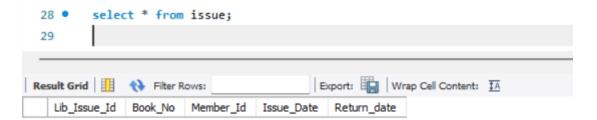
```
12 • 🖯 CREATE TABLE Member (
           Member_Id INT PRIMARY KEY,
 13
 14
            Member_Name VARCHAR(30),
 15
           Member_address VARCHAR(50),
 16
            Acc_Open_Date DATE,
 17
            Membership_type VARCHAR(20) CHECK (Membership_type IN ('Lifetime', 'Annual', 'Half Yearly', 'Quarterly')),
 18
            Fees_paid INT,
 19
            Max_Books_Allowed INT,
            Penalty_Amount DECIMAL(7,2)
 20
 21
 22
        select * from member;
 23 •
| Edit: 🚄 📆 | Export/Import: 📳 👸 | Wrap Cell Content: 🖽
                                      Acc_Open_Date Membership_type Fees_paid Max_Books_Allowed Penalty_Amount
  Member_Id Member_Name Member_address
· NULL
```

5) Modify the table Member increase the width of the member name to 30

characters.

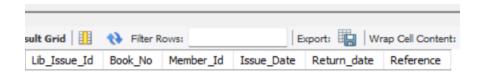
alter table member modify Member_name varchar(30);

6) Add a column named as Reference of Char(30) to Issue table.



After adding reference

```
0 • select * from issue;
1 • ALTER TABLE Issue ADD Reference CHAR(30);
2
```



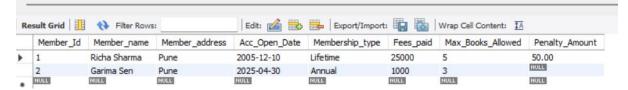
7) Delete/Drop the column Reference from Issue.

ALTER TABLE Issue DROP COLUMN Reference;

8) Rename the table Issue to Lib_Issue.

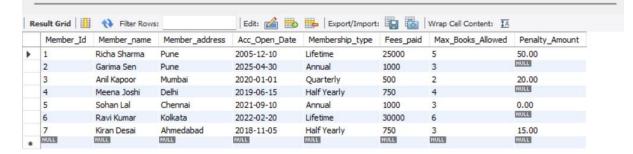
9) Insert following data in table Member

```
39 • insert into member values(1, 'Richa Sharma', 'Pune', '2005-12-10', 'Lifetime', 25000, 5, 50.00),
40   (2, 'Garima Sen', 'Pune', '2025-04-30', 'Annual', 1000, 3, NULL);
41
42 • select * from member;
```



10) Insert at least 5 records with suitable data.

```
44 • insert into member values
45  (3, 'Anil Kapoor', 'Mumbai', '2020-01-01', 'Quarterly', 500, 2, 20.00),
46  (4, 'Meena Joshi', 'Delhi', '2019-06-15', 'Half Yearly', 750, 4, NULL),
47  (5, 'Sohan Lal', 'Chennai', '2021-09-10', 'Annual', 1000, 3, 0.00),
48  (6, 'Ravi Kumar', 'Kolkata', '2022-02-20', 'Lifetime', 30000, 6, NULL),
49  (7, 'Kiran Desai', 'Ahmedabad', '2018-11-05', 'Half Yearly', 750, 3, 15.00);
50
```



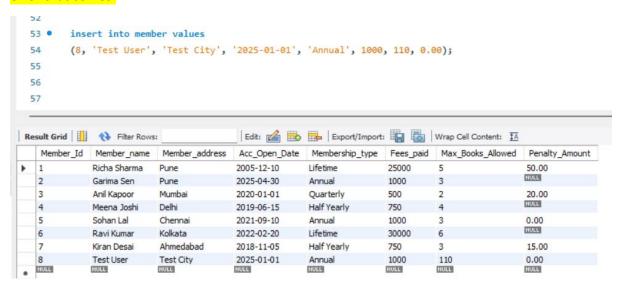
11) Modify the column Member_name. Decrease the width of the member

name to 20 characters. (If it does not allow state the reason for that)

ALTER TABLE Member MODIFY Member_Name VARCHAR(20);

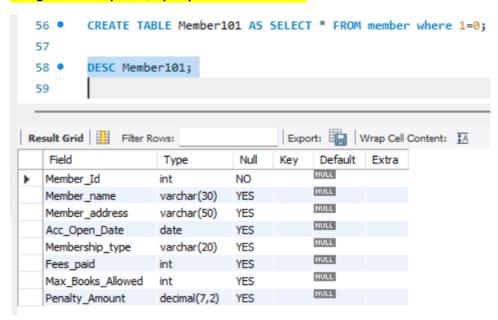
12) Try to insert a record with Max_Books_Allowed = 110, Observe the

error that comes.



13) Generate another table named Member101 using a Create command

along with a simple SQL query on member table.



14) Add the constraints on columns max_books_allowed and penalty_amt

as follows

a. max books allowed < 100

b. penalty_amt maximum 1000

Also give names to the constraints.

ALTER TABLE member

ADD CONSTRAINT chk_max_books_allowed

```
CHECK (max_books_allowed < 100);
alter table member
add constraint chk_Penalty_Amount
check ( Penalty_Amount<=1000);</pre>
15) Drop the table books.
DROP TABLE Books;
16) Create table Books again as per the schema description with the
following constraints.
a. Book_No - Primary Key
b. Book_Name - Not Null
c. Category - System, Fiction, Database, RDBMS, Others.
CREATE TABLE Books (
  Book_No INT PRIMARY KEY,
  Book_Name VARCHAR(30) NOT NULL,
  Author_name VARCHAR(30),
  Cost DECIMAL(7,2),
  Category VARCHAR(20) CHECK (Category IN ('System', 'Fiction', 'Database', 'RDBMS', 'Others'))
);
```

17) Insert data in Book table as follows:

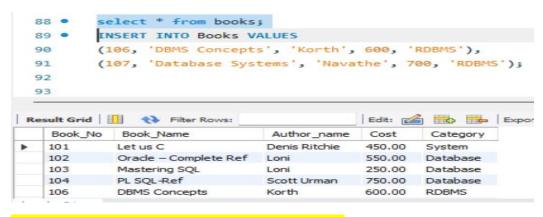
```
INSERT INTO Books VALUES
         (101, 'Let us C', 'Denis Ritchie', 450, 'System'),
 83
         (102, 'Oracle - Complete Ref', 'Loni', 550, 'Database'),
 84
         (103, 'Mastering SQL', 'Loni', 250, 'Database'),
 85
         (104, 'PL SQL-Ref', 'Scott Urman', 750, 'Database');
 87
          select * from books;
 88 •
 89
                                               | Edit: 🚄 📆 🕦 | Export/Impo
Book_No Book_Name
                                   Author_name Cost
Denis Ritchie 450.00
                                                          Category

    101
    Let us C
    Denis Ritchie
    450.00
    System

    102
    Oracle - Complete Ref
    Loni
    550.00
    Database

            Mastering SQL
PL SQL-Ref
                                                250.00 Database
750.00 Database
   103
                                  Loni
                                  Scott Urman
```

18) Insert more records in Book table.



19) View the data in the tables using simple SQL query.

SELECT * FROM Member;

SELECT * FROM Books;

SELECT * FROM Lib_Issue;

20) Insert into Book following data. 105, National Geographic, Adis Scott, 1000, Science

INSERT INTO Books VALUES

(105, 'National Geographic', 'Adis Scott', 1000, 'Science');

21) Rename the table Lib_Issue to Issue.

RENAME TABLE Lib_Issue TO Issue;

22) Drop table Issue.

DROP TABLE Issue;

23) As per the given structure Create table Issue again with following

```
CREATE TABLE Issue (
```

```
Lib_Issue_Id INT PRIMARY KEY,

Book_No INT,

Member_Id INT,

Issue_Date DATE,

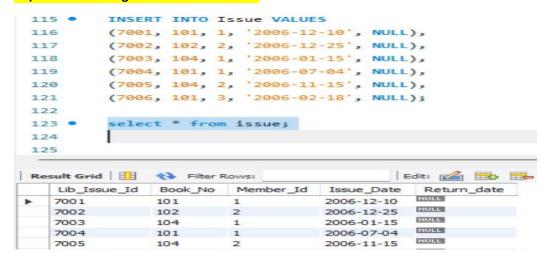
Return_date DATE,

FOREIGN KEY (Book_No) REFERENCES Books(Book_No),

FOREIGN KEY (Member_Id) REFERENCES Member(Member_Id)

);
```

24)Insert following data into Issue table.



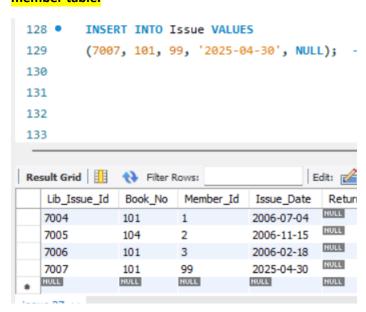
25) Remove the constraints on Issue table

ALTER TABLE Issue DROP FOREIGN KEY Issue_ibfk_1;

ALTER TABLE Issue DROP FOREIGN KEY Issue_ibfk_2;

26) Insert a record in Issue table. The member_id should not exist in

member table.



27) Now enable the constraints of Issue table. Observe the error 28) Delete the record inserted at Q-27) and enable the constraints. **DELETE FROM Issue WHERE Member_Id = 99; ALTER TABLE Issue** ADD CONSTRAINT fk_book FOREIGN KEY (Book_No) REFERENCES Books(Book_No), ADD CONSTRAINT fk_member FOREIGN KEY (Member_Id) REFERENCES Member(Member_Id); 29) Try to delete the record of member id 1 from member table and observe the error. **DELETE FROM Member WHERE Member_Id = 1;** -- This will fail due to foreign key in Issue table 30) View the data and structure of all the three tables Member, Issue, Book. **DESC Member; DESC Books**; **DESC** Issue; **SELECT * FROM Member; SELECT * FROM Books;**

Issue date.

SELECT * FROM Issue;

UPDATE Issue SET Return_date = DATE_ADD(Issue_Date, INTERVAL 15 DAY) WHERE Lib_Issue_Id IN (7004, 7005);

32) Remove all the records from Issue table where member_ID is 1

31) Modify the Return_Date of 7004,7005 to 15 days after the

and Issue date in before 10-Dec-06.

DELETE FROM Issue WHERE Member_Id = 1 AND Issue_Date < '2006-12-10';

33) Remove all the records from Book table with category other

than RDBMS and Database.

DELETE FROM Books WHERE Category NOT IN ('RDBMS', 'Database');

34) Remove the table Member.

DROP TABLE Member;

35) Remove the table Book.

DROP TABLE Books;