Assignment 2

Q1) Create the table Member, Books and Issue without any constraints as mentioned in the schema description above.

Ans:- 1) create table members(id int,name varchar(30),

-> address varchar(30),aacc_open_date date,

-> membership_type varchar(20),

-> fees_paid int,max_books_allow int,

-> amount decimal(7,2));

2) create table books(

-> bno int,bname varchar(30),

-> aname varchar(30),cost decimal(7,2),

-> cost decimal(7,2),

-> category char(10));

3) create table issue(

-> id int,bookno int,

-> memberid int,

-> issuedate date,

-> returndate date);

Q2) View the structure of the tables.

Ans:- 1) desc members;

2) desc books;

3) desc issue;

Q3) Drop the Member table.

Ans:- drop table members;

Q4) 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'

Ans:- create table members (id int primary key ,name varchar(20),address varchar(50), open_date date,paid int,booksallow int,amount decimal(7,2),membership_type varchar(30) check (membership_type='lifetime'|| membership_type='annual'||membership_type='Half yearly'||membership_type='Quarterily'));

Q5) Modify the table Member increase the width of the member name to 30 characters.

Ans :- alter table members modify name varchar(30);

Q6) Add a column named as Reference of Char(30) to Issue table.

Ans:- alter table issue add column reference char(30);

Q7) Delete/Drop the column Reference from Issue.

Ans:- alter table issue drop column reference;

Q8) Rename the table Issue to Lib_Issue.

Ans:- rename table issue to lib_lissue;

Q9) Insert following data in table Member

Member ID	Member Name	Member Address	Acc_Open_Date	Membership_type	Fees_Paid	Max_Books _Allowed	Penalty_ Amount
1	Richa Sharma	Pune	10-12-05	Lifetime	25000	5	50
2	Garima Sen	Pune	current date	Annual	1000	3	Null

Ans:-1) insert into members(

    -> id ,name,address,open_date,

    -> membership_type,paid,booksallow,

    -> amount)values(

    -> 1,'Richa Sharma','pune','23-09-25',

    -> 'lifetime',25000,5,50);

2) insert into members(

    -> id,name,address,open_date,membership_type,paid,booksallow,amount)

    -> values(2,'Garima Sen','pune',CURRENT_DATE,'annual',1000,3,null);

Q10) Insert at least 5 records with suitable data.

Ans:- 1) insert into members(

    -> id ,name,address,open_date,

    -> membership_type,paid,booksallow,

```
   -> amount)values(

   -> 1,'Richa Sharma','pune','23-09-25',

   -> 'lifetime',25000,5,50);
```

2) insert into members(
```
   -> id,name,address,open_date,membership_type,paid,booksallow,amount)

   -> values(2,'Garima Sen','pune',CURRENT_DATE,'annual',1000,3,null);
```

3) insert into members(
```
   -> id,name,address,open_date,membership_type,paid,booksallow,amount)

   -> values(3,'shrikant','karad','30-05-23','lifetime',5660,4,40);
```

4) insert into members(
```
   -> id,name,address,open_date,membership_type,paid,booksallow,amount)

   -> values(4,'samiksha','shivajinagar','11-02-24','Half yearly',4000,7,70);
```

5) insert into members(
```
   -> id,name,address,open_date,membership_type,paid,booksallow,amount)

   -> values(5,'runali','chikhali','27-05-24','Quarterily',2600,3,30);
```

Q 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).

Ans:- alter table members modify name varchar(20);

Q 12) Try to insert a record with Max_Books_Allowed = 110, Observe the error that comes.

Ans:- insert into members(
```
   -> id,name,address,open_date,membership_type,paid,booksallow,amount)

   -> values(5,'sanika','mumbai','08-08-18','part time',67000,110,70);
```
ERROR 3819 (HY000): Check constraint 'members_chk_1' is violated**.**

Q 13) Generate another table named Member101 using a Create command along with a simple SQL query on member table.

Ans:- create table member101(

->id int primary key,name varchar(30),

->address varchar(50),

->open_date date,paid int,booksallow int,

->amount decimal(7,2),

->membership_type varchar(30)

->check(membership_type in ('Lifetime',' Annual',

-> 'Half Yearly',' Quarterly')));

Q 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.

Ans:- 1) alter table member101 add constraint bookallow check(booksallow <100);

2) alter table member101 add constraint amount check(amount<=1000);

Q 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.

Ans:- create table books(

-> bno int primary key ,bname varchar(30)not null,

-> aname varchar(30),cost decimal(7,2),

-> category char(10)check (category in('System',' Fiction',' Database', 'RDBMS', 'Others')));

Q 17) Insert data in Book table as follows:

Book_No	Book Name	Author	Cost	Category
101	Let us C	Denis Ritchie	450	System
102	Oracle – Complete Ref	Loni	550	Database
103	Mastering SQL	Loni	250	Database
104	PL SQL-Ref	Scott Urman	750	Database

Ans:- 1) insert into books(

-> bno,bname,aname,cost,category)

-> values(101,'let us c','Denis ritchie',450,'System');

2) INSERT INTO Books

-> (bno, bname, aname,cost, category)

-> VALUES

-> (102,'oracle complete ref','loni',550,'Database');

3) INSERT INTO Books

   -> (bno, bname, aname,cost, category)

   -> VALUES

   -> (103,'mastering sql','loni',225,'Database');

4) INSERT INTO Books

   -> (bno, bname, aname,cost, category)

   -> VALUES

   -> (104,'PL sql ref','scott uemon',750,'Database');

Q 18) Insert more records in Book table.

1) INSERT INTO Books

   -> (bno, bname, aname,cost, category)

   -> VALUES

   -> (105,'java basics','Sharma',400,'system');

2) INSERT INTO Books

   -> (bno, bname, aname,cost, category)

   -> VALUES

   -> (106,'Python Guide','Mehta',500,'Fiction');

3) INSERT INTO Books

   -> (bno, bname, aname,cost, category)

   -> VALUES

   -> (107,'agnipankh','apj kalam',700,'Fiction');

Q 20) Insert into Book following data. 108, National Geographic, Adis Scott, 1000, Science.

Ans:- INSERT INTO Books

   -> (bno, bname, aname,cost, category)

   -> VALUES

   -> (108,'National Geographic','Adis Scott',1000,'science');

Q 21) Rename the table Lib_Issue to Issue.

Ans:- rename table lib_lissue to issue;

Q 22) Drop table Issue.

Ans:- drop table issue;

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

♣ **Lib_Issue_Id-Primary key**

♣ **Book_No- foreign key**

♣ **Member_id - foreign key**

♣ **Issue_date**

♣ **Return_date**

Ans:- create table issue (

   -> issue_id int primary key,

   -> bno int,mid int,issue_date date,

   -> return_date date,

   -> foreign key(bno) references books(bno),

   -> foreign key(mid) references members(id));

Q 24) Insert following data into Issue table.

Ans:- 1) insert into issue

   -> (issue_id,bno,mid,issue_date)

   -> values

   -> (7011,101,1,'10-10-06');

2) insert into issue

   -> (issue_id,bno,mid,issue_date)

   -> values

   -> (7002,102,2,'25-10-06');

3) insert into issue

   -> (issue_id,bno,mid,issue_date)

-> values

-> (7003,104,1,'15-01-06');

4) insert into issue

-> (issue_id,bno,mid,issue_date)

-> values

-> (7004,101,1,'04-09-06');

5) insert into issue

-> (issue_id,bno,mid,issue_date)

-> values

-> (7005,104,2,'15-11-06');

6) insert into issue

-> (issue_id,bno,mid,issue_date)

-> values

-> (7006,101,3,'18-02-06');

Q 25) Remove the constraints on Issue table.

Ans:- 1) alter table issue drop primary key;

2) alter table issue drop constraint issue_ibfk_1;

3) alter table issue drop constraint issue_ibfk_2;

Q 27) Now enable the constraints of Issue table. Observe the error.

Ans:- ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`Issue`, CONSTRAINT `Issue_ibfk_2` FOREIGN KEY (`Mid`) REFERENCES `Member` (`Member_Id`))

Q 28) Delete the record inserted at Q-27) and enable the constraints.

Ans:- delete from issue where issue_id=7;

Q 30) View the data and structure of all the three tables Member, Issue, Book.

Ans:- 1) desc members;

Table members;

2) desc books;

Table books;

3) desc issue;

Table issue;

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

Ans:- UPDATE issue

   -> SET return_date = DATE_ADD(issue_date, INTERVAL 15 DAY)

   -> WHERE issue_id IN (7004, 7005);

Q 32) Remove all the records from Issue table where member_ID is 1 and Issue date in before 10-Dec-06.

Ans:- DELETE FROM issue

   -> WHERE mid = 1

   -> AND issue_date < '2006-12-10';

Q 33) Remove all the records from Book table with category other than RDBMS and Database.

Ans:- DELETE FROM Books

   -> WHERE category NOT IN ('RDBMS', 'Database');

34) Remove the table Member.

Ans:- drop table members;

35) Remove the table Book.

Ans:- drop table books;