6.Multiple Tables and Joins

4-5-23

1. select \* from LMS\_MEMBERS;
2. select \* from LMS\_BOOK\_DETAILS;
3. select \* from LMS\_fine\_details;
4. select \* from LMS\_BOOK\_ISSUE;
5. select \* from LMS\_SUPPLIERS\_DETAILS;

Q1) Write a query to display total fine amount paid by members (select

Member\_ID, Member\_Name, City, Membership\_status, Fine amount)

Ans.

Attempt 1.

TABLES LINK

select \* from LMS\_MEMBERS;

-MEMBER\_ID

select \* from LMS\_BOOK\_DETAILS;

-MEMBER\_ID

-FINE\_RANGE.

select \* from LMS\_fine\_details;

-FINE\_RANGE

SO WE LINK TABLE 1 WITH 2 AND 2 WITH 3.

SELECT M.Member\_ID, M.Member\_Name, M.City, M.MEMBERSHIP\_STATUS, SUM(fd.Fine\_amount)

FROM LMS\_MEMBERS M

INNER JOIN LMS\_BOOK\_DETAILS BD

ON M.MEMBER\_ID=BD.MEMBER ID

INNER JOIN LMS\_FINE\_DETAIL FD

ON BD.FINE\_RANGE = FD.FINE\_RANGE

GROUP BY M.MEMBER\_ID, M.MEMBER\_NAME, M.CITY, M.MEMBERSHIP\_STATUS;

error=”SQL command not properly ended”

Mistake

i used member, book details and fine details tables instead of members, book details, book issue.

Answer provided

SELECT lms\_members.MEMBER\_ID,

lms\_members.MEMBER\_NAME,lms\_members.CITY,lms\_m

embers.MEMBERSHIP\_STATUS,

SUM(lms\_fine\_details.FINE\_AMOUNT)

FROM lms\_members

JOIN lms\_book\_issue ON (lms\_members.MEMBER\_ID =

lms\_book\_issue.MEMBER\_ID)

JOIN lms\_fine\_details on(lms\_book\_issue.FINE\_RANGE =

lms\_fine\_details.FINE\_RANGE)

GROUP BY lms\_members.MEMBER\_ID,

lms\_members.MEMBER\_NAME,lms\_members.CITY,lms\_m

embers.MEMBERSHIP\_STATUS;

Error “FROM keyword not found where expected”

Attempt 2.

Tables

LMS\_MEMBERS-Member\_ID, Member\_Name, City, MEMBERSHIP\_STATUS (MEMBER\_ID)

LMS\_BOOK\_ISSUE- (MEMBER\_ID)(FINE\_RANGE)

LMS\_FINE\_DETAILS- FINE\_AMOUNT (FINE\_RANGE)

SELECT M.Member\_ID, M.Member\_Name, M.City, M.MEMBERSHIP\_STATUS, SUM(FD.FINE\_AMOUNT)

AS Total\_Fine\_Amount

FROM LMS\_MEMBERS M

LEFT JOIN LMS\_BOOK\_ISSUE BI

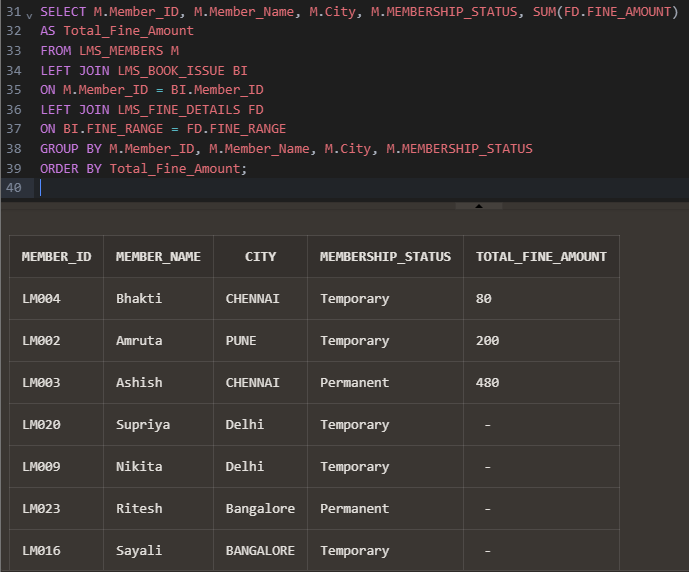
ON M.Member\_ID = BI.Member\_ID

LEFT JOIN LMS\_FINE\_DETAILS FD

ON BI.FINE\_RANGE = FD.FINE\_RANGE

GROUP BY M.Member\_ID, M.Member\_Name, M.City, M.MEMBERSHIP\_STATUS

ORDER BY Total\_Fine\_Amount;



FROM keyword not found where

Q2) Write a query to display the members who have issued more than

4 books. (Select member ID, member name and count of books)

Ans.

TABLES LINK

select \* from LMS\_MEMBERS;

-**MEMBER\_ID**

**select \* from LMS\_BOOK\_ISSUE;.**

**-MEMBER\_ID**

**QUERY=**

**SELECT M.Member\_ID, COUNT(M.Member\_ID), M.Member\_Name**

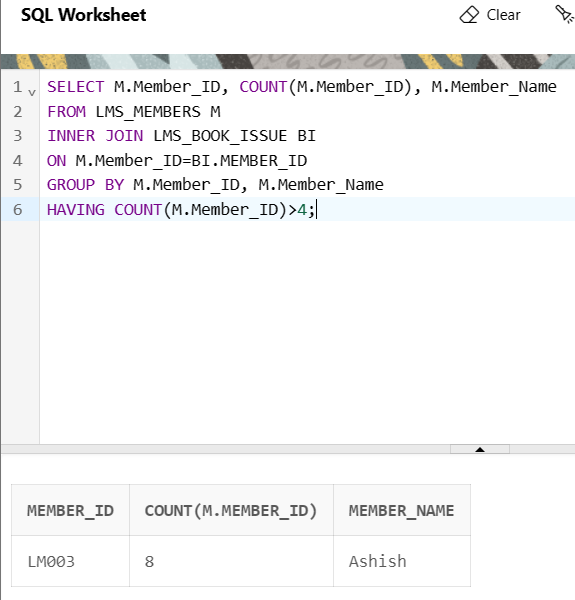
**FROM LMS\_MEMBERS M**

**INNER JOIN LMS\_BOOK\_ISSUE BI**

**ON M.Member\_ID=BI.MEMBER\_ID**

**GROUP BY M.Member\_ID, M.Member\_Name**

**HAVING COUNT(M.Member\_ID)>4;**

****

Q3) Write a query to display the book\_code from lms\_book details

table, Book\_title, Date\_issue from lms\_book\_issue. If date\_issue is null

then display "No" else display "Yes" with alias Availability Status.

Ans.

TABLE LINK

lms\_book details -BOOK\_CODE

lms\_book\_issue--BOOK\_CODE

SELECT BD.BOOK\_CODE, BI.BOOK\_TITLE,

CASE

WHEN BI.DATE\_ISSUE IS NULL THEN 'No'

ELSE 'Yes'

END AS AVAILABILITY\_STATUS

FROM LMS\_BOOK\_DETAILS BD

INNER JOIN LMS\_BOOK\_ISSUE BI

ON BD.BOOK\_CODE=BI.BOOK\_CODE

GROUP BY BD.BOOK\_CODE, BI.BOOK\_TITLE, BI.DATE\_ISSUE;

ERROR

"BI"."BOOK\_TITLE": invalid identifier

It seems that the lms\_book\_issue table does not have a column called book\_title. Please check the column name and ensure that it exists in the table. If it doesn't, you may need to modify your query to join with a different table that contains the book\_title information.

Attempt 2.

Points-

1.In the given scenario, if the book is issued, the AVAILABILITY\_STATUS should be 'No' because it is not available but the question statement tells the viceversa so it's logically incorrect.

2.The placement of the CASE statement at the beginning of the SELECT clause is just a conventional style,

SELECT BD.BOOK\_CODE, BD.BOOK\_TITLE,

CASE WHEN BI.DATE\_ISSUE IS NULL THEN 'No'

ELSE 'Yes' END AS AVAILABILITY\_STATUS

FROM LMS\_BOOK\_details BD

LEFT JOIN LMS\_BOOK\_ISSUE BI

ON BD.BOOK\_CODE = BI.BOOK\_CODE

GROUP BY BD.BOOK\_CODE, BD.BOOK\_TITLE, BI.DATE\_ISSUE;

