Weekly assessment 1

Name:Dharunya S

Simple Questions:

1.Write a query to display the member id, member name, city and membership status who are all having life time membership. Hint: Life time membership status is "Permanent".

select member_id,member_name,city,membership_status from lms_members where membership_status="permanent";

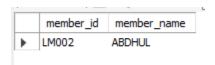|	member_id	member_name	city	membership_status
▶	LM003	GAYAN	CHENNAI	Permanent

2.Write a query to display the member id, member name who have not returned the books. Hint: Book return status is book_issue_status ='Y' or 'N'.

select i.member_id ,m.member_name from lms_members m inner join lms_book_issue i on i.member_id=m.member_id where book_issue_status='N';

	member_id	member_name
▶	LM001	AMIT
	LM002	ABDHUL
	LM005	GURU

3.Write a query to display the member id, member name who have taken the book with book code 'BL000002'.

select i.member_id ,m.member_name from lms_members m inner join lms_book_issue i on i.member_id=m.member_id where book_code="BL000002";

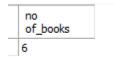|	member_id	member_name
▶	LM002	ABDHUL

4.Write a query to display the book code, book title and author of the books whose author name begins with 'P'.

select i.book_code ,d.book_title,d.author from lms_book_details d inner join lms_book_issue i on i.book_code=d.book_code where d.author like 'p%';

	book_code	book_title	author
▶	BL000001	Java How To Do Program	Paul J. Deitel
	BL000005	Java How To Do Program	Paul J. Deitel

5.Write a query to display the total number of Java books available in library with alias name 'NO_OF_BOOKS'

 select count(category) as "no of_books" from lms_book_details where category="java";

no of_books
6

6.Write a query to list the category and number of books in each category with alias name 'NO_OF_BOOKS'.

 select category,count(category) as "no of_books" from lms_book_details group by category;

category	no of_books
JAVA	6
C	2

7.Write a query to display the number of books published by "Prentice Hall" with the alias name "NO_OF_BOOKS".

select count(publication) as "no of_books" from lms_book_details where publication="Prentice Hall";

no of_books
▶ 3

8.Write a query to display the book code, book title of the books which are issued on the date "1 st April 2012".

select d.book_code, d.book_title from lms_book_details d join lms_book_issue i on d.book_code = i.book_code where i.date_issue = '2012-04-01';

book_code	book_title

9.Write a query to display the member id, member name, date of registration and expiry date of the members whose membership expiry date is before APR 2013.

select member_id, member_name, date_register, date_expire from lms_members where date_expire < '2013-04-01';

member_id	member_name	date_register	date_expire
▶ LM005	GURU	2012-03-30	2013-03-29

10.write a query to display the member id, member name, date of registration, membership status of the members who registered before "March 2012" and membership status is "Temporary"

select member_id, member_name, date_register, membership_status from lms_members where date_register < '2012-03-01' and membership_status='Temporary';

member_id	member_name	date_register	membership_status
▶ LM001	AMIT	2012-02-20	Temporary

11.Write a query to display the member id, member name who's City is CHENNAI or DELHI. Hint: Display the member name in title case with alias name 'Name'.

select member_id, member_name from lms_members where city ='chennai' or 'delhi';

member_id	member_name
▶ LM001	AMIT
LM003	GAYAN
LM004	RADHA
LM006	MOHAN

12.Write a query to concatenate book title, author and display in the following format. Book_Title_is_written_by_Author Example: Let Us C_is_written_by_Yashavant Kanetkar Hint: display unique books. Use "BOOK_WRITTEN_BY" as alias name.

select distinct concat(book_title, '_is_written_by_', author) as BOOK_WRITTEN_BY from lms_book_details;

BOOK_WRITTEN_BY
▶ Java How To Do Program_is_written_by_Paul J. Deitel
Java: The Complete Reference _is_written_by_Herbert Schildt
Let Us C_is_written_by_Yashavant Kanetkar

13.Write a query to display the average price of books which is belonging to 'JAVA' category with alias name "AVERAGEPRICE".

select avg(price) as AVERAGEPRICE from lms_book_details where category='JAVA';

AVERAGEPRICE
▶ 675.0000

14.Write a query to display the supplier id, supplier name and email of the suppliers who are all having gmail account.

select supplier_id,supplier_name,email from lms_suppliers_details where lower(email) like '%@gmail.com';

supplier_id	supplier_name	email
▶ S01	SINGAPORE SHOPPEE	sing@gmail.com
S03	ROSE BOOK STORE	rose@gmail.com

15. Write a query to display the supplier id, supplier name and contact details. Contact details can be either phone number or email or address with alias name "CONTACTDETAILS". If phone number is null then display email, even if email also null then display the address of the supplier. Hint: Use Coalesce function.

select supplier_id, supplier_name, coalesce(address, contact, email) as contactdetails from lms_suppliers_details;

supplier_id	supplier_name	contactdetails
S01	SINGAPORE SHOPPEE	CHENNAI
S02	JK Stores	MUMBAI
S03	ROSE BOOK STORE	TRIVANDRUM
S04	KAVARI STORE	DELHI
S05	EINSTEN BOOK GALLARY	US
S06	AKBAR STORE	MUMBAI

16.Write a query to display the supplier id, supplier name and contact. If phone number is null then display 'No' else display 'Yes' with alias name "PHONENUMAVAILABLE"

select supplier_id, supplier_name, contact, if(contact is not null, 'Yes', 'No') as phonenumavailable from lms_suppliers_details;

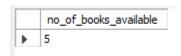| supplier_id	supplier_name	contact	phonenumavailable
S01	SINGAPORE SHOPPEE	989412355	Yes
S02	JK Stores	994012345	Yes
S03	ROSE BOOK STORE	944441122	Yes
S04	KAVARI STORE	863000145	Yes
S05	EINSTEN BOOK GALLARY	954200001	Yes
S06	AKBAR STORE	785562310	Yes

Average Questions

1.Write a query to display the member id, member name of the members, book code and book title of the books taken by them.

select m.member_id, m.member_name, b.book_code, b.book_title from lms_members m
inner join lms_book_issue i on m.member_id = i.member_id
inner join lms_book_details b on i.book_code = b.book_code;

member_id	member_name	book_code	book_title
LM001	AMIT	BL000001	Java How To Do Program
LM002	ABDHUL	BL000002	Java: The Complete Reference
LM004	RADHA	BL000005	Java How To Do Program
LM003	GAYAN	BL000007	Let Us C
LM005	GURU	BL000008	Let Us C

2.Write a query to display the total number of books available in the library with alias name "NO_OF_BOOKS_AVAILABLE" (Which is not issued). Hint: The issued books details are available in the LMS_BOOK_ISSUE table.

select count(*) as no_of_books_available from lms_book_details d where d.book_code
      not in (select book_code
  from lms_book_issue
  where book_issue_status = 'N'
);

	no_of_books_available
▶	5

3. Write a query to display the member id, member name, fine range and fine amount of the members whose fine amount is less than 100.

select m.member_id, m.member_name, f.fine_range, f.fine_amount
from lms_members m
inner join lms_book_issue i on m.member_id = i.member_id
inner join lms_fine_details f on i.fine_range = f.fine_range
where f.fine_amount < 100;

	member_id	member_name	fine_range	fine_amount
▶	LM001	AMIT	R1	20
	LM002	ABDHUL	R2	50
	LM003	GAYAN	R1	20
	LM004	RADHA	R1	20
	LM005	GURU	R2	50

4.Write a query to display the book code, book title and availability status of the 'JAVA' books whose edition is "6". Show the availability status with alias name "AVAILABILITYSTATUS". Hint: Book availability status can be fetched from "BOOK_ISSUE_STATUS" column of LMS_BOOK_ISSUE table.

select b.book_code, b.book_title, i.book_issue_status as availabilitystatus
from lms_book_details b
inner join lms_book_issue i on b.book_code = i.book_code
where category = 'java'
and b.book_edition = 6;

	book_code	book_title	availabilitystatus
▶	BL000001	Java How To Do Program	N
	BL000005	Java How To Do Program	Y

5.Write a query to display the book code, book title and rack number of the books which are placed in rack 'A1' and sort by book title in ascending order.

select book_code, book_title, rack_num from lms_book_details
where rack_num = 'A1' order by book_title asc;

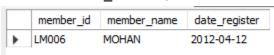| book_code	book_title	rack_num
BL000001	Java How To Do Program	A1
BL000003	Java How To Do Program	A1
BL000005	Java How To Do Program	A1
BL000002	Java: The Complete Reference	A1
BL000004	Java: The Complete Reference	A1
BL000006	Java: The Complete Reference	A1

6. Write a query to display the member id, member name, due date and date returned of the members who has returned the books after the due date. Hint: Date_return is due date and Date_returned is actual book return date.

select m.member_id, m.member_name, i.date_return as due_date, i.date_returned
from lms_members m
inner join lms_book_issue i on m.member_id = i.member_id
where i.date_returned > i.date_return;

member_id	member_name	due_date	date_returned
LM002	ABDHUL	2012-06-06	2012-11-01
LM003	GAYAN	2012-05-06	2012-10-05
LM005	GURU	2012-08-16	2012-08-19

7. Write a query to display the member id, member name and date of registration who have not taken any book
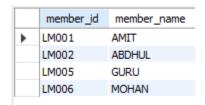
select m.member_id, m.member_name, m.date_register
from lms_members m
left join lms_book_issue i
on m.member_id = i.member_id
where i.member_id is null;

member_id	member_name	date_register
LM006	MOHAN	2012-04-12

8.Write a Query to display the member id and member name of the members who has not paid any fine in the year 2012.

select m.member_id, m.member_name
from lms_members m
where m.member_id not in (
    select i.member_id
    from lms_book_issue i
    where book_issue_status = 'Y'

```
    and year(i.date_returned) = 2012
);
```

member_id	member_name
LM001	AMIT
LM002	ABDHUL
LM005	GURU
LM006	MOHAN

9. Write a query to display the date on which the maximum numbers of books were issued and the number of books issued with alias name "NOOFBOOKS".
select date_issue, count(*) as noofbooks
from lms_book_issue
group by date_issue
order by noofbooks desc
limit 1;

date_issue	noofbooks
2012-05-01	2

10. Write a query to list the book title and supplier id for the books authored by "Herbert Schildt" and the book edition is 5 and supplied by supplier 'S01'.
select book_title, supplier_id
from lms_book_details
where author = 'Herbert Schildt'and book_edition = 5 and supplier_id = 'S01';

book_title	supplier_id
Java: The Complete Reference	S01

11. Write a query to display the rack number and the number of books in each rack with alias name "NOOFBOOKS" and sort by rack number in ascending order.
select rack_num, count(*) as noofbooks
from lms_book_details
group by rack_num
order by rack_num asc;

rack_num	noofbooks
A1	6
A3	2

12. Write a query to display book issue number, member name, date or registration, date of expiry, book title, category author, price, date of issue, date of return, actual returned date, issue status, fine amount.

Select i.book_issue_no,m.member_name,m.date_register,m.date_expire,
b.book_title,b.category,b.author,b.price,i.date_issue,i.date_return,i.date_returned,i.book_issue_status,f.fine_amount
from lms_book_issue i
inner join lms_members m on i.member_id = m.member_id
inner join lms_book_details b on i.book_code = b.book_code
inner join lms_fine_details f on i.fine_range = f.fine_range;

1	AMIT	2012-02-20	2013-11-02	Java How To Do Program	JAVA	Paul J. Deitel	60 0	2012-05-01	2012-05-16	2012-05-16	N	2 0
2	ABDHUL	2012-04-10	2013-04-09	Java: The Complete Reference	JAVA	Herbert Schildt	75 0	2012-02-12	2012-06-06	2012-11-01	N	5 0
4	RADHA	2012-04-22	2013-04-21	Java How To Do Program	JAVA	Paul J. Deitel	60 0	2012-05-01	2012-05-16	2012-05-16	Y	2 0
3	GAYAN	2013-05-12	2013-05-14	Let Us C	C	Yashavant Kanetkar	50 0	2012-04-19	2012-05-06	2012-10-05	Y	2 0
5	GURU	2012-03-30	2013-03-29	Let Us C	C	Yashavant Kanetkar	50 0	2012-07-11	2012-08-16	2012-08-19	N	5 0

13. Write a query to display book issue number, member name, date or registration, date of expiry, book title, category author, price, date of issue, date of return, actual returned date, issue status, fine amount.

select book_code ,book_title, publish_date from lms_book_details
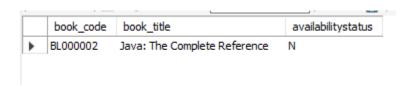where month(publish_date)=12;

	book_code	book_title	publish_date
▶	BL000005	Java How To Do Program	1999-12-10
	BL000007	Let Us C	2010-12-11
	BL000008	Let Us C	2010-12-11

14.Write a query to display the book code, book title and availability status of the 'JAVA' books whose edition is "5". Show the availability status with alias name "AVAILABILITYSTATUS". Hint: Book availability status can be fetched from "BOOK_ISSUE_STATUS" column of LMS_BOOK_ISSUE table.

select b.book_code, b.book_title, i.book_issue_status as availabilitystatus
from lms_book_details b
inner join lms_book_issue i on b.book_code = i.book_code
where b.category = 'java'

	book_code	book_title	availabilitystatus
▶	BL000002	Java: The Complete Reference	N

Complex Question

1.Write a query to display the book code, book title and supplier name of the supplier who has supplied maximum number of books. For example, if "ABC Store" supplied 3 books, "LM Store" has supplied 2 books and "XYZ Store" has supplied 1 book. So "ABC Store" has supplied maximum number of books, hence display the details as mentioned below.

select d.book_code, d.book_title, sd.supplier_name
from lms_book_details d
inner join lms_suppliers_details sd
  on d.supplier_id = sd.supplier_id
where d.supplier_id = (
    select supplier_id
    from (
        select supplier_id
        from lms_book_details
        group by supplier_id
        order by count(*) desc

```
    limit 1
  ) as max_supplier
);
```

	book_code	book_title	supplier_name
▶	BL000001	Java How To Do Program	SINGAPORE SHOPPEE
	BL000003	Java How To Do Program	SINGAPORE SHOPPEE
	BL000004	Java: The Complete Reference	SINGAPORE SHOPPEE
	BL000005	Java How To Do Program	SINGAPORE SHOPPEE

2.Write a query to display the member id, member name and number of remaining books he/she can take with "REMAININGBOOKS" as alias name. Hint: Assuming a member can take maximum 3 books. For example, Ramesh has already taken 2 books; he can take only one book now. Hence display the remaining books as 1 in below format.
```
select m.member_id,
    m.member_name,
    3 - count(i.book_code) as remainingbooks
from lms_members m
left join lms_book_issue i on m.member_id = i.member_id and i.book_issue_status = 'N'
group by m.member_id, m.member_name;
```

	member_id	member_name	remainingbooks
▶	LM001	AMIT	2
	LM002	ABDHUL	2
	LM003	GAYAN	3
	LM004	RADHA	3
	LM005	GURU	2
	LM006	MOHAN	3

3. Write a query to display the supplier id and supplier name of the supplier who has supplied minimum number of books. For example, if "ABC Store" supplied 3 books, "LM Store" has supplied 2 books and "XYZ Store" has supplied 1 book. So "XYZ Store" has supplied minimum number of books, hence display the details as mentioned below.

```
select m.member_id, m.member_name, 3 - count(i.book_code) as remainingbooks
 from lms_members m
left join lms_book_issue i on m.member_id = i.member_id and i.book_issue_status = 'N'
group by m.member_id, m.member_name;
```

	supplier_id	supplier_name
▶	S04	KAVARI STORE