

## SIMPLE

### Problem # 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".

```
62 • select member_id,member_name,city,membership_status from lms_members
63 where membership_status='Permanent';
64
```

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap C
member_id	member_name	city	membership_status	
LM003	GAYAN	CHENNAI	Permanent	
NULL	NULL	NULL	NULL	

### Problem # 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'.

```
66 • select distinct m.member_id,m.member_name from lms_members m
67 inner join lms_book_issue bi on bi.member_id=m.member_id
68 where book_issue_status='N';
69
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
member_id	member_name		
LM001	AMIT		
LM002	ABDHUL		
LM005	GURU		

### Problem # 3:

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

```
71 • select member_id,member_name from lms_members where member_id in  
72 (select member_id from lms_book_issue where book_code='BL000002');
```

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap
member_id	member_name			
LM002	ABDHUL			
NULL	NULL			

#### **Problem # 4:**

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

```
74 • select book_code,book_title,author from lms_book_details where author like 'P%';  
75
```

Result Grid	Filter Rows:	Edit:	Export/Import:	Wrap Cell Content:
book_code	book_title	author		
BL000001	Java How To Do Program	Paul J. Deitel		
BL000003	Java How To Do Program	Paul J. Deitel		
BL000005	Java How To Do Program	Paul J. Deitel		
NULL	NULL	NULL		

#### **Problem # 5:**

Write a query to display the total number of Java books available in library with alias name 'NO\_OF\_BOOKS'.

```
76 • select count(category) NO_OF_BOOKS from lms_book_details where category='JAVA';  
77
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
NO_OF_BOOKS			
6			

**Problem # 6:**

Write a query to list the category and number of books in each category with alias name 'NO\_OF\_BOOKS'.

```
81 • select category,count(category) NO_OF_BOOKS from lms_book_details group by category;  
82
```

category	NO_OF_BOOKS
JAVA	6
C	2

**Problem # 7:**

Write a query to display the number of books published by "Prentice Hall" with the alias name "NO\_OF\_BOOKS".

```
86 • select count(publication) NO_OF_BOOKS from lms_book_details where publication='Prentice Hall';  
87
```

NO_OF_BOOKS
3

**Problem # 8:**

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

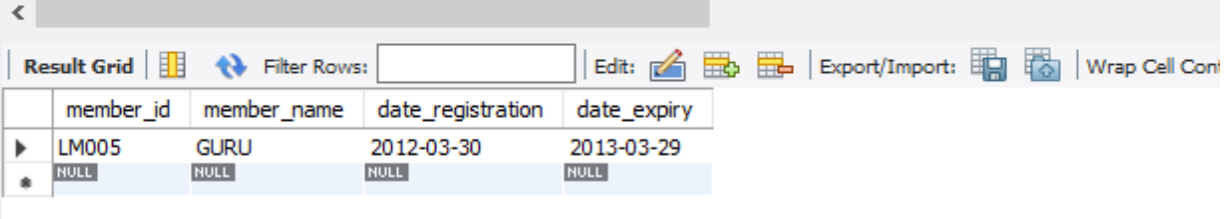
```
93 • select book_code,book_title from lms_book_details where book_code in  
94 (select book_code from lms_book_issue where date_issue='2012-04-01');  
95
```

book_code	book_title
NULL	NULL

**Problem # 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.

```
99 • select member_id,member_name,date_registration,date_expiry from lms_members
100 where date_expiry < '2013-04-01';
```

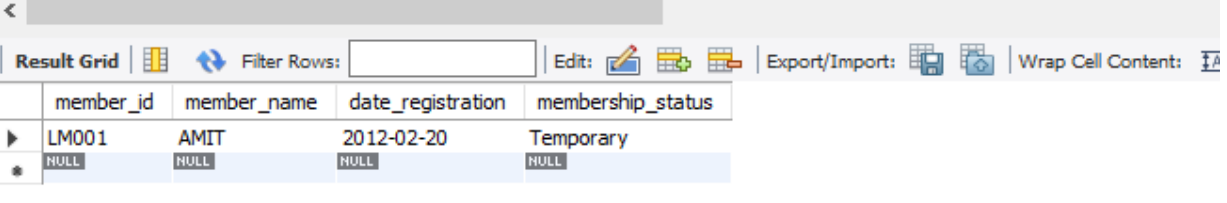


	member_id	member_name	date_registration	date_expiry
▶	LM005	GURU	2012-03-30	2013-03-29
*	NULL	NULL	NULL	NULL

**Problem # 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"

```
102 • select member_id,member_name,date_registration,membership_status from lms_members
103 where date_registration < '2012-03-01' and membership_status='Temporary';
104
```



	member_id	member_name	date_registration	membership_status
▶	LM001	AMIT	2012-02-20	Temporary
*	NULL	NULL	NULL	NULL

**Problem #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'.

```
105 • select member_id,upper(member_name) Name from lms_members
106     where city='Chennai' or city='Delhi';
107
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
	member_id	Name	
▶	LM001	AMIT	
	LM002	ABDHUL	
	LM003	GAYAN	
	LM004	RADHA	
	LM006	MOHAN	

**Problem #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.


```
108 • select distinct concat(book_title,' ','is written by',' ',author) BOOK_WRITTEN_BY
109     from lms_book_details;
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
	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		

**Problem #13:**

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

```
114 • select avg(price) AVERAGEPRICE from lms_book_details where category='JAVA';
```



The screenshot shows a database interface with a query editor and a result grid. The query is: `select avg(price) AVERAGEPRICE from lms_book_details where category='JAVA';`. The result grid has two columns: `AVERAGEPRICE` and a single row with the value `675.000000`.

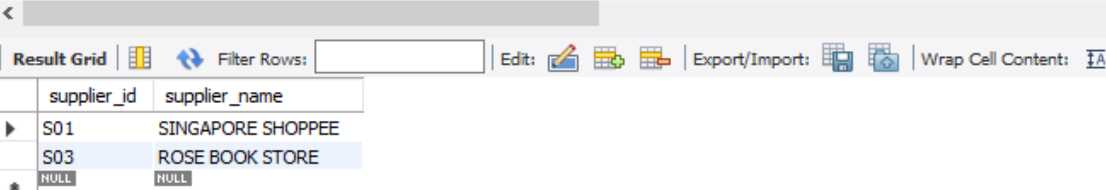
AVERAGEPRICE
675.000000

**Problem #14:**

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

```
116 • select supplier_id,supplier_name from lms_suppliers_details where email like '%@gmail.com';
```

```
117
```



The screenshot shows a database interface with a query editor and a result grid. The query is: `select supplier_id,supplier_name from lms_suppliers_details where email like '%@gmail.com';`. The result grid has two columns: `supplier_id` and `supplier_name`. It shows three rows: `S01` (SINGAPORE SHOPPEE), `S03` (ROSE BOOK STORE), and a row with `NULL` values.

supplier_id	supplier_name
S01	SINGAPORE SHOPPEE
S03	ROSE BOOK STORE
NULL	NULL

**Problem#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.

```
120 • select supplier_id,supplier_name,coalesce(email,contact,address) CONTACTDETAILS from lms_suppliers_details ;
121
```

supplier_id	supplier_name	CONTACTDETAILS
S01	SINGAPORE SHOPPEE	sing@gmail.com
S02	JK Stores	jks@yahoo.com
S03	ROSE BOOK STORE	rose@gmail.com
S04	KAVARI STORE	kavi@redif.com
S05	EINSTEN BOOK GALLERY	eingal@aol.com
S06	AKBAR STORE	akbakst@aol.com

**Problem#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". **Hint:** Use NVL2.

```
123 • select supplier_id,supplier_name,if(contact IS NULL,'No','Yes') PHONENUMAVAILABLE from lms_suppliers_details;
124
```

supplier_id	supplier_name	PHONENUMAVAILABLE
S01	SINGAPORE SHOPPEE	Yes
S02	JK Stores	Yes
S03	ROSE BOOK STORE	Yes
S04	KAVARI STORE	Yes
S05	EINSTEN BOOK GALLERY	Yes
S06	AKBAR STORE	Yes

## AVERAGE

### Problem # 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.

```
128 • select m.member_id,m.member_name,bi.book_code,bd.book_title from lms_members m
129      join lms_book_issue bi on bi.member_id=m.member_id
130      join lms_book_details bd on bd.book_code =bi.book_code;
131
```

<

Result Grid | | Filter Rows:  | Export: | Wrap Cell Content:

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

### Problem # 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.

```
135 • select count(*) NO_OF_BOOKS_AVAILABLE from lms_book_details where book_code not in
136      (select book_code from lms_book_issue);
```

<

Result Grid | | Filter Rows:  | Export: | Wrap Cell Content:

	NO_OF_BOOKS_AVAILABLE
▶	3



**Problem # 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.

```
138 • select m.member_id,m.member_name,bi.fine_range,fd.fine_amount from lms_members m
139      join lms_book_issue bi on bi.member_id=m.member_id
140      join lms_fine_details fd on fd.fine_range=bi.fine_range
141      where fd.fine_amount<100;
```

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

**Problem # 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.

```
143 • select bd.book_code,bd.book_title,bi.book_issue_status as AVAILABILITYSTATUS from lms_book_details bd
144      join lms_book_issue bi on bi.book_code=bd.book_code
145      where category='JAVA' and book_edition=6;
146
```

book_code	book_title	AVAILABILITYSTATUS
BL000001	Java How To Do Program	N
BL000005	Java How To Do Program	Y

**Problem # 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.

```
148 • select book_code,book_title,rack_number from lms_book_details
149     where rack_number='A1'
150     order by book_title;
151
```

Result Grid

	book_code	book_title	rack_number
▶	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
*	NULL	NULL	NULL

**Problem # 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.

```
152 • select m.member_id,m.member_name,bi.due_return,bi.date_returned from lms_members m
153     join lms_book_issue bi on bi.member_id = m.member_id
154     where bi.date_returned > bi.due_return ;
```

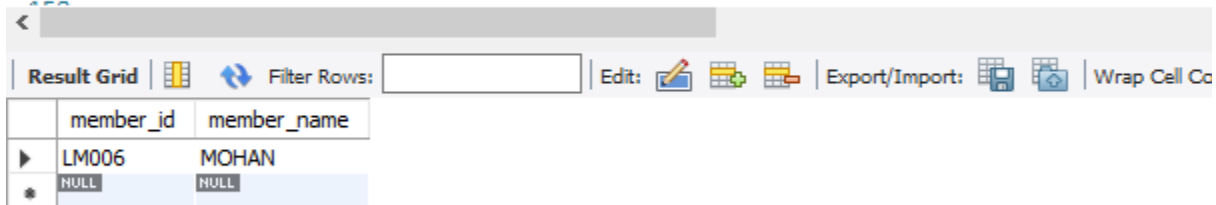
Result Grid

	member_id	member_name	due_return	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

**Problem # 7:**

Write a query to display the member id, member name and date of registration who have not taken any book.

```
156 • select m.member_id,m.member_name from lms_members m where member_id not in  
157      ( select member_id from lms_book_issue);
```



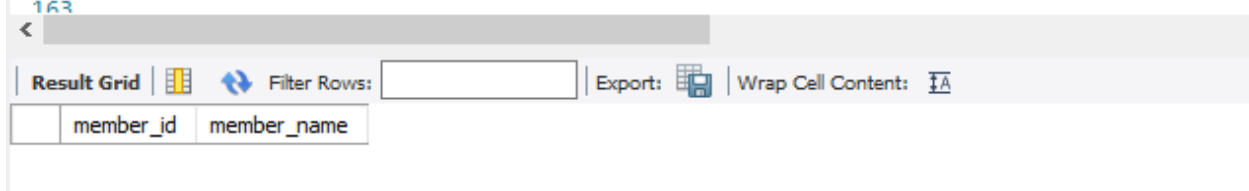
The screenshot shows a database query result grid. The grid has two columns: 'member\_id' and 'member\_name'. The first row shows 'LM006' and 'MOHAN'. The second row shows 'NULL' and 'NULL'. The grid is titled 'Result Grid' and has a 'Filter Rows' field. The 'Export/Import' button is visible.

member_id	member_name
LM006	MOHAN
NULL	NULL

**Problem # 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.

```
160 • select m.member_id,m.member_name from lms_members m join lms_book_issue i on  
161      i.member_id=m.member_id  
162      where i.date_returned < i.date_returned and year(i.date_issue)=2012;
```




The screenshot shows a database query result grid. The grid has two columns: 'member\_id' and 'member\_name'. The grid is titled 'Result Grid' and has a 'Filter Rows' field. The 'Export' button is visible.

member_id	member_name
-----------	-------------

**Problem # 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".



```
164 • select date_issue,count(*) NOOFBOOKS from lms_book_issue
165      group by date_issue
166      order by NOOFBOOKS desc
167      limit 1;
168
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Content: 		
	date_issue	NOOFBOOKS
▶	2012-05-01	2

**Problem # 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'.

```
169 • select b.book_title,b.supplier_id from lms_book_details b
170      where b.author='Herbert Schildt' and b.supplier_id='S01' and b.book_edition=5;
171
```

<		
Result Grid		
Filter Rows: <input type="text"/>		
Export:  Wrap Cell Content: 		
	book_title	supplier_id
▶	Java: The Complete Reference	S01

**Problem # 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.

```

173 • select b.rack_number,count(*) NOOFBOOKS from lms_book_details b
174      group by b.rack_number
175      order by b.rack_number;
176

```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	rack_number	NOOFBOOKS			
▶	A1	6			
	A3	2			

### **Problem # 12:**

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

```

177 • select I.book_issue_no, M.member_name, M.date_registration, M.date_expiry, D.book_title, D.category, D.author,
178      D.price, I.date_issue as 'date of issue', I.due_return 'date of return', I.date_returned 'Actual Returned date',
179      I.book_issue_status 'Issue Satus', F.fine_amount FROM LMS_BOOK_ISSUE I
180      JOIN LMS_MEMBERS M ON I.member_id = M.member_id
181      JOIN LMS_BOOK_DETAILS D ON I.book_code = D.book_code
182      LEFT JOIN LMS_FINE_DETAILS F ON I.fine_range = F.fine_range;
183

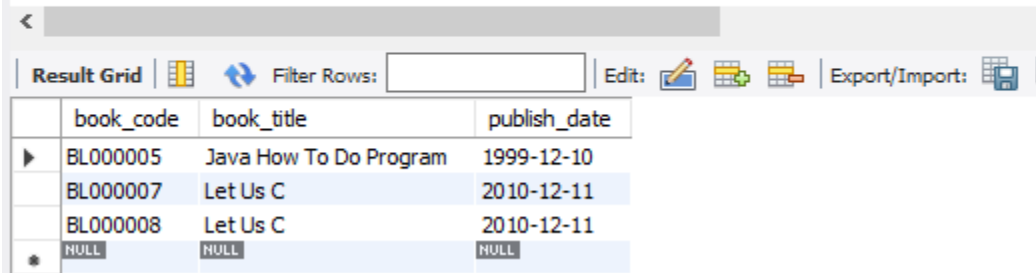
```

Result Grid										Filter Rows:	Export:	Wrap Cell Content:
	book_issue_no	member_name	date_registration	date_expiry	book_title	category	author	price	date of issue			
▶	1	AMIT	2012-02-20	2013-11-02	Java How To Do Program	JAVA	Paul J. Deitel	600.00	2012-05-01			
	2	ABDHUL	2012-04-10	2013-04-09	Java: The Complete Reference	JAVA	Herbert Schildt	750.00	2012-02-12			
	3	GAYAN	2013-05-12	2013-05-14	Let Us C	C	Yashavant Kanetkar	500.00	2012-04-19			
	4	RADHA	2012-04-22	2013-04-21	Java How To Do Program	JAVA	Paul J. Deitel	600.00	2012-05-01			
	5	GURU	2012-03-30	2013-03-29	Let Us C	C	Yashavant Kanetkar	500.00	2012-07-11			

**Problem # 13:**

Write a query to display the book code, title, publish date of the books which is been published in the month of December.

```
184 • select book_code,book_title,publish_date from lms_book_details
185     where Month(publish_date) = 12;
186
```



The screenshot shows a database interface with a 'Result Grid' tab. Above the grid is a 'Filter Rows' input field and buttons for 'Edit', 'Export/Import', and 'Wrap Cell Content'. The grid contains the following data:

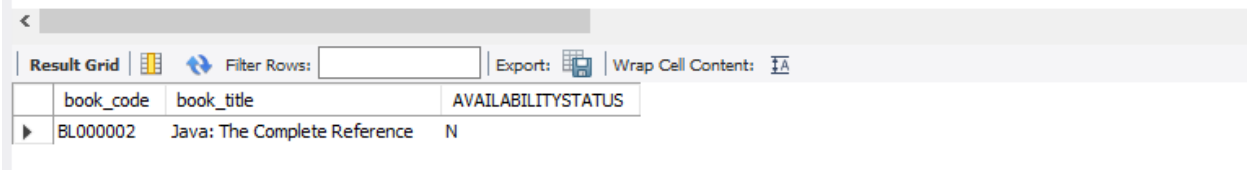
	book_code	book_title	publish_date
▶	BL000005	Java How To Do Program	1999-12-10
	BL000007	Let Us C	2010-12-11
	BL000008	Let Us C	2010-12-11
*	NULL	NULL	NULL

**Problem # 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.

```
187 • select b.book_code,book_title,i.book_issue_status as AVAILABILITYSTATUS from lms_book_details b
188     join lms_book_issue i on i.book_code=b.book_code
189     where b.category='JAVA' AND b.book_edition=5;
190
191
```



The screenshot shows a database interface with a 'Result Grid' tab. Above the grid is a 'Filter Rows' input field and buttons for 'Export', 'Wrap Cell Content', and 'IA'. The grid contains the following data:

	book_code	book_title	AVAILABILITYSTATUS
▶	BL000002	Java: The Complete Reference	N

## COMPLEX

### Problem # 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.

```
194 • SELECT D.book_code, D.book_title, S.supplier_name FROM LMS_BOOK_DETAILS D JOIN LMS_SUPPLIERS_DETAILS S ON
195 D.supplier_id = S.supplier_id WHERE D.supplier_id = (SELECT supplier_id FROM LMS_BOOK_DETAILS
196 GROUP BY supplier_id ORDER BY COUNT(*) DESC LIMIT 1);
197
```

Result Grid			
Filter Rows: <input type="text"/>			
Export:  Wrap Cell Content:			
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	

### Problem # 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.

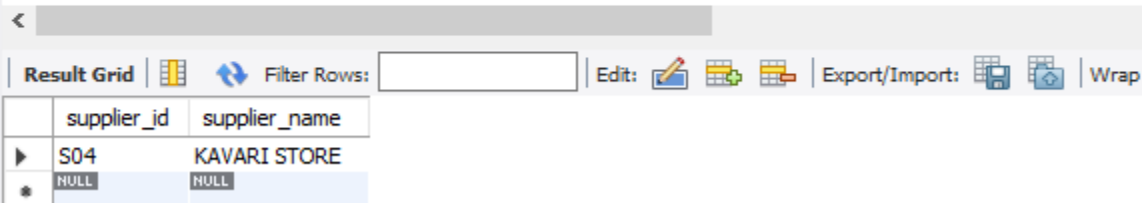
```
198 • SELECT M.member_id, M.member_name, 3 - COUNT(B.book_code) AS REMAININGBOOKS FROM LMS_MEMBERS M
199 LEFT JOIN LMS_BOOK_ISSUE B ON M.member_id = B.member_id GROUP BY M.member_id, M.member_name;
```

Result Grid			
Filter Rows: <input type="text"/>			
Export:  Wrap Cell Content:			
member_id	member_name	REMAININGBOOKS	
LM001	AMIT	2	
LM002	ABDHUL	2	
LM003	GAYAN	2	
LM004	RADHA	2	
LM005	GURU	2	
LM006	MOHAN	3	

**Problem # 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.

```
202 • SELECT supplier_id, supplier_name FROM LMS_SUPPLIERS_DETAILS WHERE
203 supplier_id = (SELECT supplier_id FROM LMS_BOOK_DETAILS
204 GROUP BY supplier_id ORDER BY COUNT(*) ASC LIMIT 1);
205
```



	supplier_id	supplier_name
▶	S04	KAVARI STORE
*	NULL	NULL