

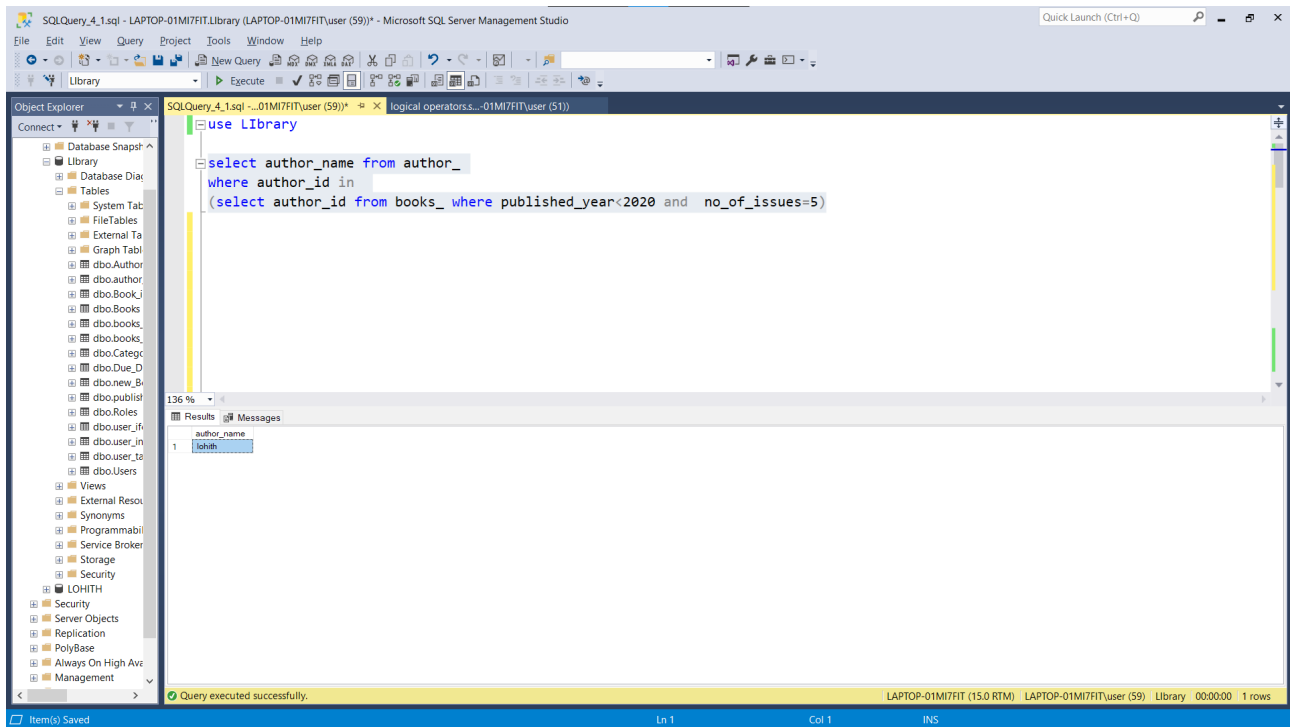
GROUP-7

1) Write 5 Nested Queries for your respective database

i)

```
select author_name from author_  
where author_id in  
(select author_id from books_ where published_year<2020 and no_of_issues=5)
```

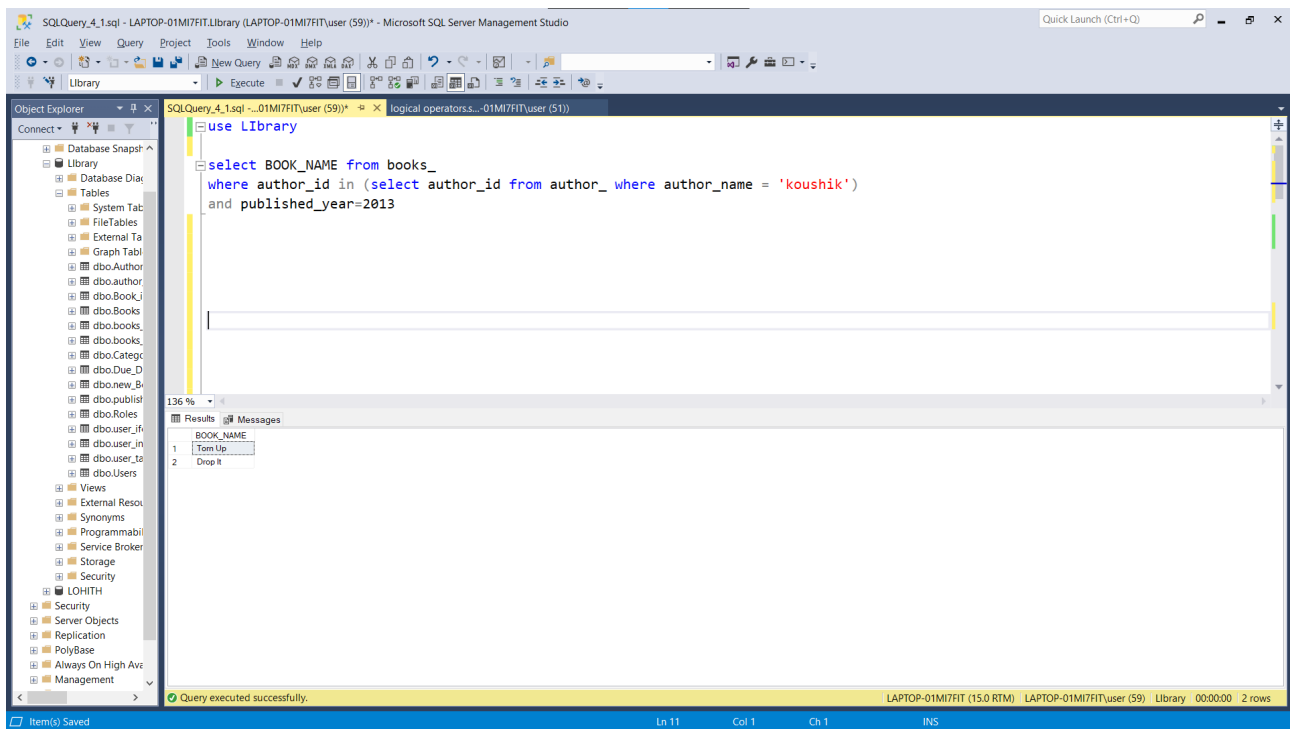
OUTPUT:-



ii)

```
select BOOK_NAME from books_  
where author_id in (select author_id from author_ where author_name = 'koushik')  
and published_year=2013
```

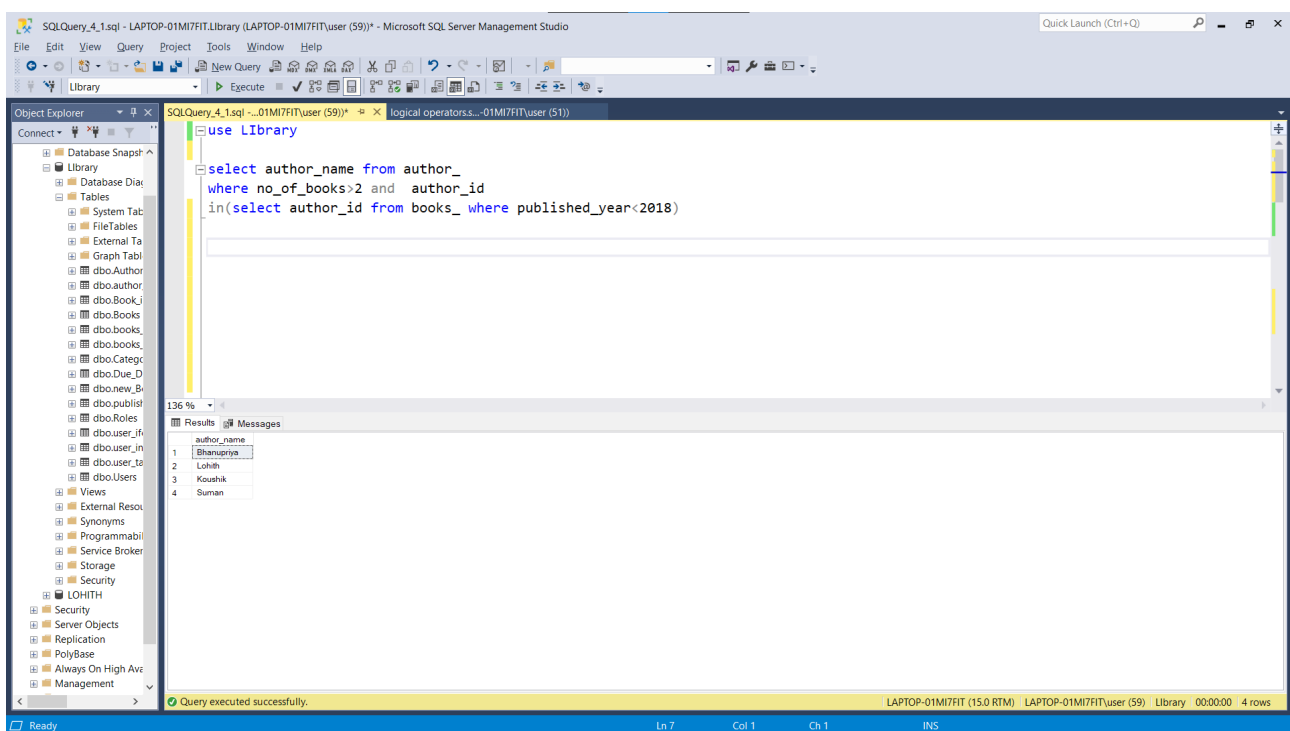
OUTPUT:-



iii)

```
select author_name from author_
where no_of_books>2 and author_id
in(select author_id from books_ where published_year<2018)
```

OUTPUT:-



```
iv)select author_name from dbo.author_
where author_id
in(select author_id from books_ where PRICE>1000 or no_of_issues>5 )
and author_name like 'g%';
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query window contains the following SQL code:

```
use Library

select author_name from dbo.author_
where author_id
in(select author_id from books_ where PRICE>1000 or no_of_issues>5 )
and author_name like 'g%';
```

The Results pane shows the output of the query:

author_name
greeshma

The status bar at the bottom indicates "Query executed successfully." and "1 rows".

```
v)select * from dbo.author_
where author_id
in(select author_id from books_ where PRICE>1000 or no_of_issues>5 ) order by author_name
ASC;
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query window contains the following SQL code:

```
use Library

select * from dbo.author_
where author_id
in(select author_id from books_ where PRICE>1000 or no_of_issues>5 ) order by author_name ASC;
```

The Results pane shows the output of the query:

author_id	author_name	no_of_books
1	greeshma	1
2	koushik	2
3	greeshma	1
4	koushik	2
5	10	5
6	lohit	2
7	9	8
8	5	2
9	4	2
10	15	5

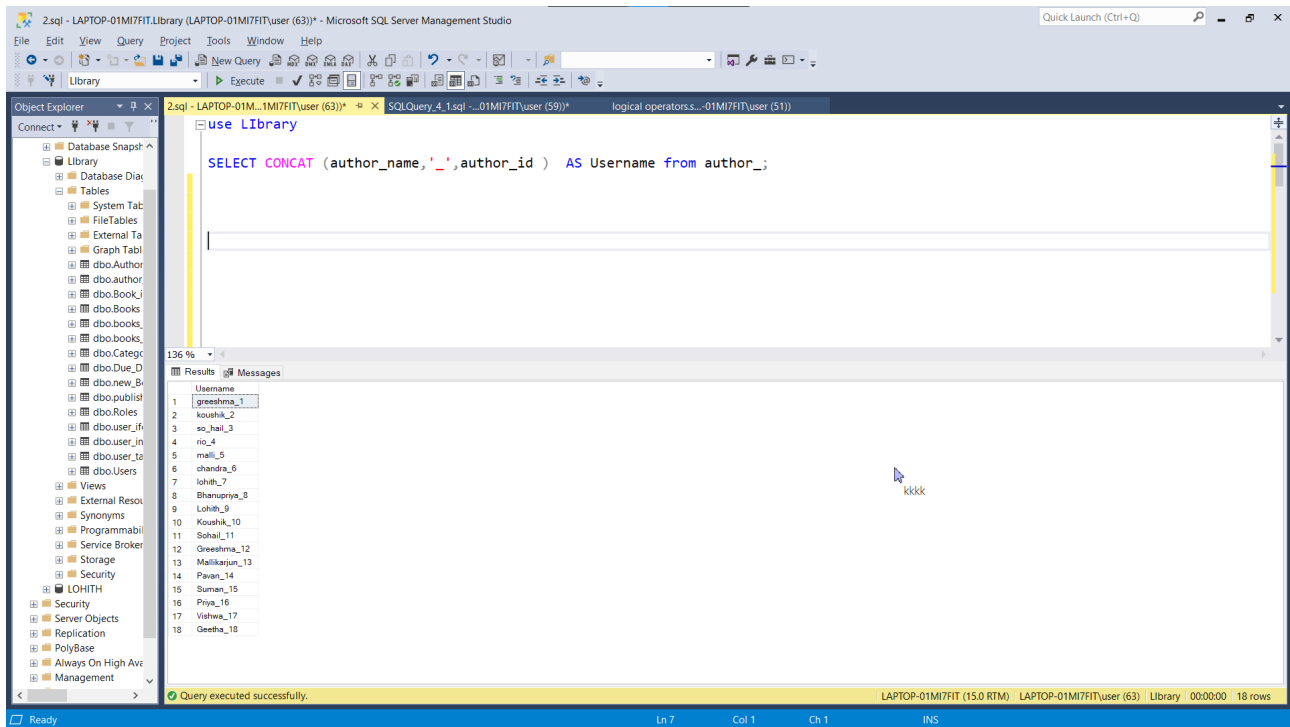
The status bar at the bottom indicates "Query executed successfully." and "10 rows".

2)
Illustrate how we can use Concat and As operators in SQL

i)

```
SELECT CONCAT (author_name, '_',author_id ) AS Username from author_;
```

OUTPUT:-



ii)

```
select CONCAT(BOOK_NAME, ' is published in the year ' ,published_year)  
as "Description" from books_
```

OUTPUT:-

2.sql - LAPTOP-01MI7FIT.Library (LAPTOP-01MI7FIT/user (63)) - Microsoft SQL Server Management Studio

use Library

```
select CONCAT(BOOK_NAME, ' is published in the year ', published_year) as "Description" from books_
```

136 %

Results Messages

Description
1 Natural Disaster is published in the year 2010
2 In the Dark is published in the year 2011
3 Caught up is published in the year 2012
4 Torn Up is published in the year 2013
5 Close my eyes is published in the year 2014
6 Guilty mind is published in the year 2015
7 Leave me alone is published in the year 2016
8 My Band is published in the year 2010
9 Fantasy Girl is published in the year 2001
10 No Flaws is published in the year 2002
11 Drop It is published in the year 2012
12 Caught up is published in the year 1994
13 Close my eyes is published in the year 1998
14 Guilty mind is published in the year 2013
15 Leave me alone is published in the year 2010
16 My Band is published in the year 1996
17 Fantasy Girl is published in the year 1996
18 No Flaws is published in the year 2010
19 Drop It is published in the year 2013

Query executed successfully.

LAPTOP-01MI7FIT (15.0 RTM) LAPTOP-01MI7FIT/user (63) Library 00:00:00 19 rows

iii) `select CONCAT(barcode_, category) as 'reference_id', * from books_`

OUTPUT:-

2.sql - LAPTOP-01MI7FIT.Library (LAPTOP-01MI7FIT/user (63)) - Microsoft SQL Server Management Studio

use Library

```
select CONCAT(barcode_, category) as 'reference_id', * from books_
```

136 %

Results Messages

reference_id	ID	BOOK_NAME	author_id	PRICE	barcode_	category	no_of_issues	published_year	bought_year
2939476209	1	Natural Disaster	1	1000	2939476	209	12	2010	2012
89567405	2	In the Dark	1	567	89567	405	23	2011	2012
89456708	3	Caught up	4	1070	89456	708	45	2012	2013
44567560	4	Torn Up	2	1000	44567	560	67	2013	2014
967467769	5	Close my eyes	8	160	967467	769	34	2014	2014
7665246156	6	Guilty mind	5	2980	7665246	156	9	2015	2016
875342346134	7	Leave me alone	6	988	875342346	134	6	2016	2016
764563122	8	My Band	7	890	764563	122	5	2010	2012
432653342	9	Fantasy Girl	8	799	432653	342	4	2001	2012
45653564	10	No Flaws	15	679	45653	564	11	2002	2004
456748908	11	Drop It	10	450	456748	908	24	2012	2012
456358879	14	Caught up	4	1070	456358	879	75	1994	2012
87657657	16	Close my eyes	8	160	87657	657	29	1998	2000
456354123	17	Guilty mind	5	2980	456354	123	1	2013	2015
8563425234	18	Leave me alone	6	988	8563425	234	13	2010	2012
654763223	19	My Band	7	890	65476	323	12	1996	2020
79678567	20	Fantasy Girl	8	799	79678	567	12	1996	2020
345476343	21	No Flaws	9	679	345476	343	13	2010	2012
456558919	22	Drop It	10	450	456558	919	1	2013	2015

Query executed successfully.

LAPTOP-01MI7FIT (15.0 RTM) LAPTOP-01MI7FIT/user (63) Library 00:00:00 19 rows

3) Illustrate all the Comparison operator

i)

```
select count(*) from dbo.books_ where no_of_issues>10
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
use Library  
  
select count(*) from dbo.books_ where no_of_issues>10
```

The query has been executed successfully, and the Results pane shows a single row with the value 13.

1	13

ii)

```
select * from dbo.books_ where price>=1000
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
use Library  
  
select * from dbo.books_ where price>=1000
```

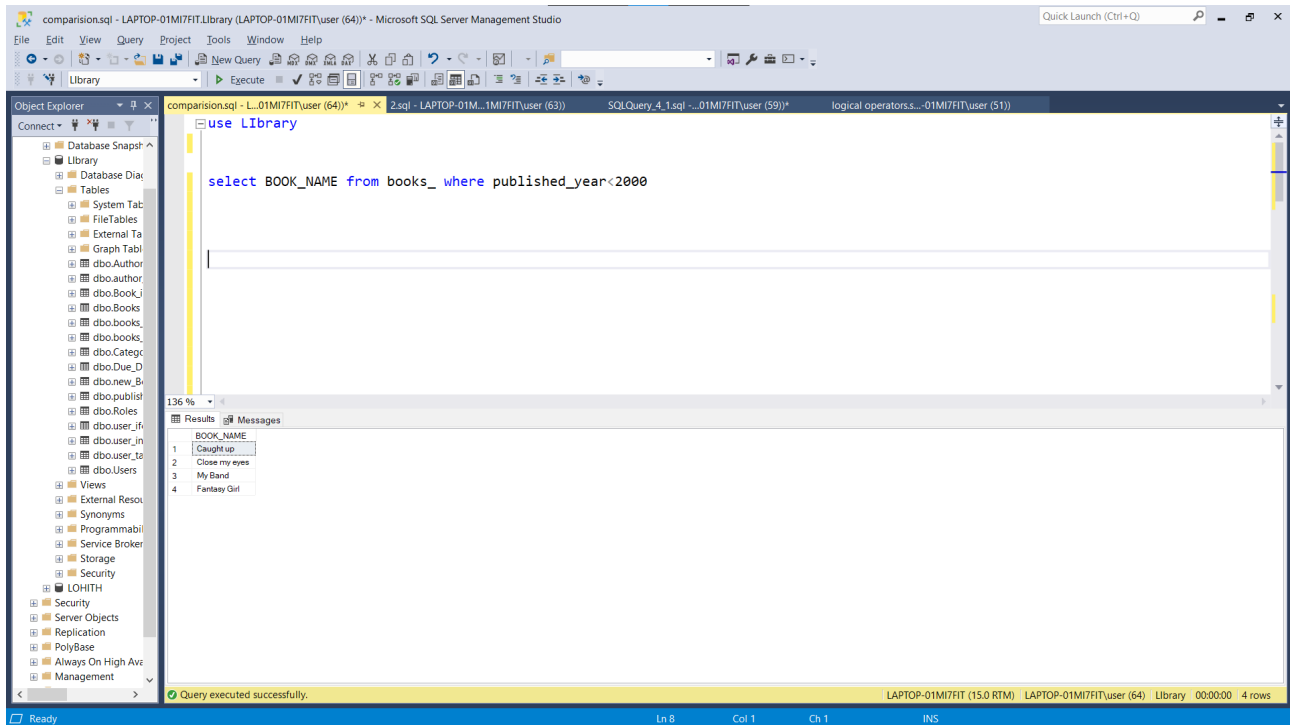
The query has been executed successfully, and the Results pane shows 6 rows of data.

ID	BOOK_NAME	author_id	PRICE	barcode_	category	no_of_issues	published_year	bought_year
1	Natural Disaster	1	1000	2938476	209	12	2010	2012
2	3 Caught up	4	1070	89456	708	45	2012	2013
3	4 Tom Up	2	1000	44567	560	67	2013	2014
4	6 Guilty mind	5	2880	7665246	156	9	2015	2016
5	14 Caught up	4	1070	456358	879	75	1994	2012
6	17 Guilty mind	5	2880	456354	123	1	2013	2015

iii)

```
select BOOK_NAME from books_ where published_year<2000
```

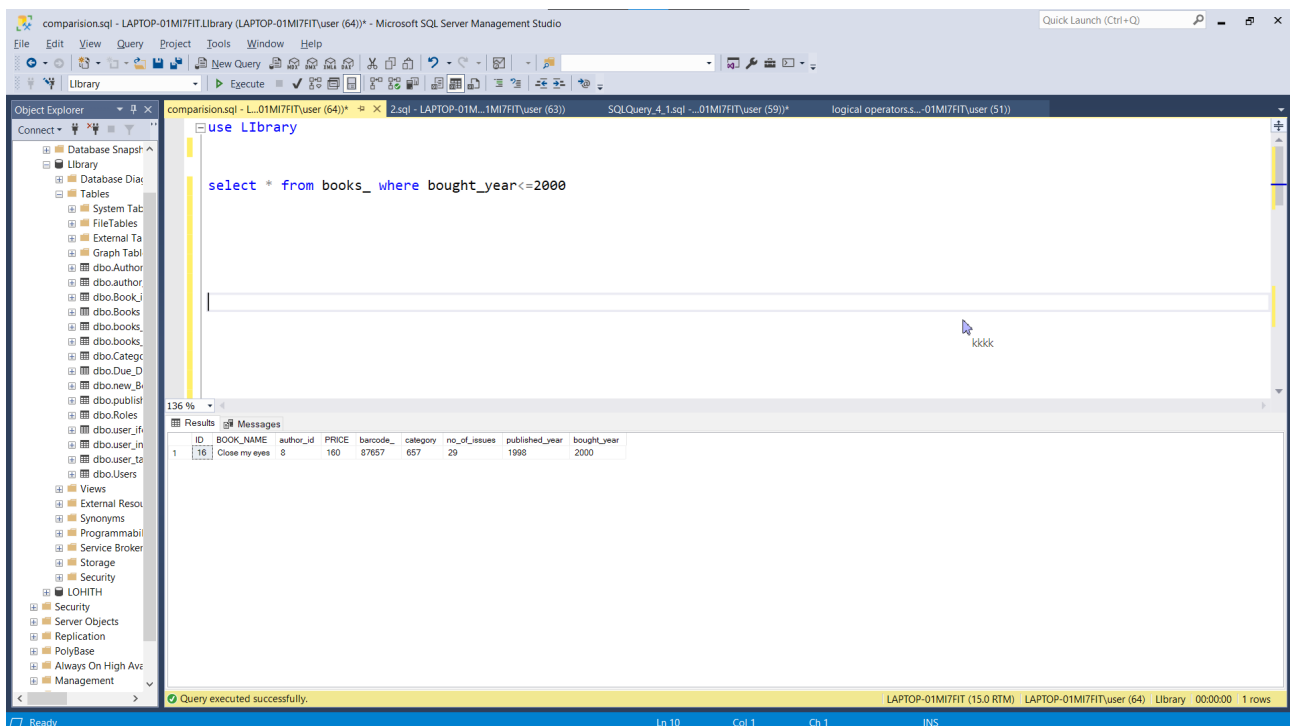
OUTPUT:-



iv)

```
select * from books_ where bought_year<=2000
```

OUTPUT:-



v) `select * from books_ where published_year=bought_year`

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL statement:

```
use Library

select * from books_ where published_year=bought_year
```

The Results pane displays 136 rows of data. The first three rows are shown in the table below:

ID	BOOK_NAME	author_id	PRICE	barcode_	category	no_of_issues	published_year	bought_year
1	Close my eyes	8	160	967467	769	34	2014	2014
2	Leave me alone	6	985	875342346	134	6	2016	2016
3	Drop It	10	450	456748	908	24	2012	2012

The status bar at the bottom indicates: "Query executed successfully. LAPTOP-01M7FIT (15.0 RTM) LAPTOP-01M7FIT(user (64)) Library 00:00:00 3 rows".

vi) `select * from books_ where author_id<>3`

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL statement:

```
use Library

select * from books_ where author_id<>3
```

The Results pane displays 136 rows of data. The first three rows are shown in the table below:

ID	BOOK_NAME	author_id	PRICE	barcode_	category	no_of_issues	published_year	bought_year
1	Natural Disaster	1	1000	2938476	209	12	2010	2012
2	In the Dark	1	567	98567	405	23	2011	2012
3	Caught up	4	1070	99456	708	45	2012	2013

The status bar at the bottom indicates: "Query executed successfully. LAPTOP-01M7FIT (15.0 RTM) LAPTOP-01M7FIT(user (64)) Library 00:00:00 19 rows".

vii) `select * from dbo.author_ where author_id < 8`

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the SQL statement: `select * from dbo.author_ where author_id < 8`. The query has been executed successfully, and the results are displayed in the Results pane. The results show 7 rows of data from the 'author_' table.

author_id	author_name	no_of_books
1	greshma	1
2	koushik	2
3	so_hail	2
4	no	2
5	mali	2
6	chandra	2
7	lohith	2

viii) `select * from books_ where BOOK_NAME <> 'Caught up'`

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the SQL statement: `select * from books_ where BOOK_NAME <> 'Caught up'`. The query has been executed successfully, and the results are displayed in the Results pane. The results show 22 rows of data from the 'books_' table, excluding the row where the book name is 'Caught up'.

ID	BOOK_NAME	author_id	PRICE	barcode_	category	no_of_issues	published_year	bought_year
1	Natural Disaster	1	1000	2938476	209	12	2010	2012
2	In the Dark	1	567	98267	405	23	2011	2012
3	Tom Up	2	1000	44567	560	67	2013	2014
4	Close my eyes	8	160	967467	769	34	2014	2014
5	Guilty mind	5	2980	7665246	156	9	2015	2016
6	Leave me alone	6	988	875342348	134	6	2016	2016
7	My Band	7	890	764563	122	5	2010	2012
8	Fantasy Girl	8	799	432653	342	4	2001	2012
9	No Flaws	15	679	45653	564	11	2002	2004
10	Drop It	10	450	456748	908	24	2012	2012
11	Close my eyes	8	160	87657	657	29	1998	2000
12	Guilty mind	5	2980	456354	123	1	2013	2015
13	Leave me alone	6	988	8963425	234	13	2010	2012
14	My Band	7	890	65476	323	12	1996	2020
15	Fantasy Girl	8	799	79678	567	12	1996	2020
16	No Flaws	9	679	345476	343	13	2010	2012
17	Drop It	10	450	456358	919	1	2013	2015

ix)

```
select * from books_ where barcode_>1234567
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
use Library  
  
select * from books_ where barcode_>1234567
```

The query was executed successfully, and the results are displayed in the Results pane. The results show 4 rows of data from the books_ table.

ID	BOOK_NAME	author_id	PRICE	barcode_	category	no_of_issues	published_year	bought_year
1	Natural Disaster	1	1000	2938476	209	12	2010	2012
2	Guilty mind	5	2980	7665246	156	9	2015	2016
3	Leave me alone	6	988	879342346	134	6	2016	2016
4	Leave me alone	6	988	8563425	234	13	2010	2012

x)

```
select * from author_ where no_of_books>4
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
use Library  
  
select * from author_ where no_of_books>4
```

The query was executed successfully, and the results are displayed in the Results pane. The results show 9 rows of data from the author_ table.

author_id	author_name	no_of_books
8	Bhanupriya	6
9	Lohith	8
10	Kaushik	5
11	Sohail	9
12	Greeshma	7
14	Pavan	8
15	Suman	5
16	Priya	9
17	Vidhya	7

xi)

```
select * from books_ where category>64
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the SQL statement: `select * from books_ where category>64`. The query has been executed successfully, as indicated by the status bar. The results pane displays a table with the following data:

ID	BOOK_NAME	author_id	PRICE	barcode_	category	no_of_issues	published_year	bought_year
1	Natural Disaster	1	1000	2938476	209	12	2010	2012
2	In the Dark	1	567	98567	405	23	2011	2012
3	Caught up	4	1070	89456	708	45	2012	2013
4	Tom Up	2	1000	44567	560	67	2013	2014
5	Close my eyes	8	160	967467	769	34	2014	2014
6	Guilty mind	5	2980	765246	156	9	2015	2016
7	Leave me alone	6	988	876342346	134	6	2016	2016
8	My Band	7	890	764563	122	5	2010	2012
9	Fantasy Girl	8	799	432653	342	4	2001	2012
10	No Flaws	15	679	45653	564	11	2002	2004
11	Drop It	10	450	456748	908	24	2012	2012
12	Caught up	4	1070	456358	879	75	1994	2012
13	Close my eyes	8	160	87657	657	29	1998	2000
14	Guilty mind	5	2980	456354	123	1	2013	2015
15	Leave me alone	6	988	8563425	234	13	2010	2012
16	My Band	7	890	65476	323	12	1996	2020
17	Fantasy Girl	8	799	79678	567	12	1996	2020
18	No Flaws	9	679	345476	343	13	2010	2012
19	Drop It	10	450	456358	919	1	2013	2015

xii)

```
select * from books_ where category>=210
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the SQL statement: `select * from books_ where category>=210`. The query has been executed successfully, as indicated by the status bar. The results pane displays a table with the following data:

ID	BOOK_NAME	author_id	PRICE	barcode_	category	no_of_issues	published_year	bought_year
1	In the Dark	1	567	98567	405	23	2011	2012
2	Caught up	4	1070	89456	708	45	2012	2013
3	Tom Up	2	1000	44567	560	67	2013	2014
4	Close my eyes	8	160	967467	769	34	2014	2014
5	Fantasy Girl	8	799	432653	342	4	2001	2012
6	No Flaws	15	679	45653	564	11	2002	2004
7	Drop It	10	450	456748	908	24	2012	2012
8	Caught up	4	1070	456358	879	75	1994	2012
9	Close my eyes	8	160	87657	657	29	1998	2000
10	Leave me alone	6	988	8563425	234	13	2010	2012
11	My Band	7	890	65476	323	12	1996	2020
12	Fantasy Girl	8	799	79678	567	12	1996	2020
13	No Flaws	9	679	345476	343	13	2010	2012
14	Drop It	10	450	456358	919	1	2013	2015

xiii)

```
select * from author_ where author_name<>'sohail'
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL statement:

```
use Library  
  
select * from author_ where author_name<>'sohail'
```

The Results pane displays the following data:

author_id	author_name	no_of_books
1	greeshma	1
2	koushik	2
3	so_hail	2
4	no	2
5	mali	2
6	chandra	2
7	lohith	2
8	Bhanupriya	6
9	Lohith	8
10	Koushik	5
11	Greeshma	7
12	Malikarjun	4
13	Pavan	8
14	Suman	5
15	Priya	9
16	Vishwa	7
17	Geetha	4

The status bar at the bottom indicates: "Query executed successfully. LAPTOP-01M7FIT (15.0 RTM) LAPTOP-01M7FIT(user (64)) Library 00:00:00 17 rows".

4) Illustrate Logical operators except ANY, ALL and Like

i)

```
select * from books_ where published_year=2000 OR bought_year = 2000
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL statement:

```
use Library  
  
select * from books_ where published_year=2000 OR bought_year = 2000
```

The Results pane displays the following data:

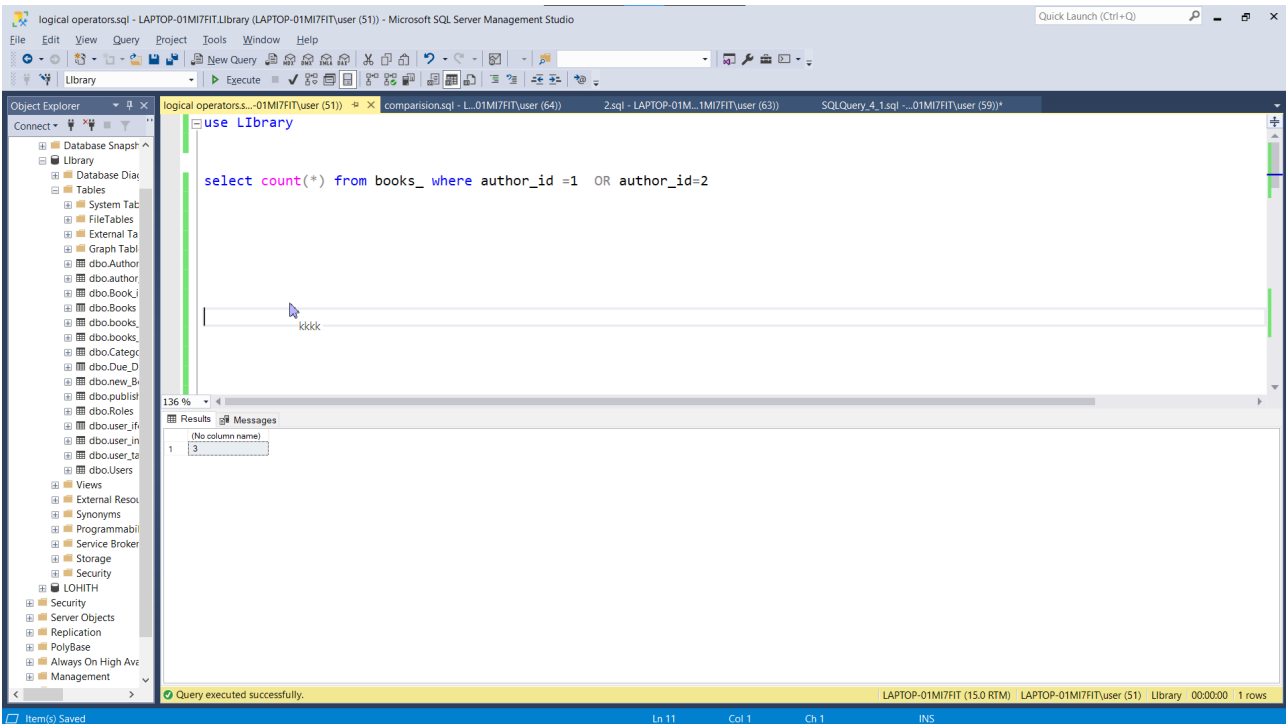
ID	BOOK_NAME	author_id	PRICE	barcode	category	no_of_issues	published_year	bought_year
1	Close my eyes	8	160	87657	657	29	1998	2000

The status bar at the bottom indicates: "Query executed successfully. LAPTOP-01M7FIT (15.0 RTM) LAPTOP-01M7FIT(user (51)) Library 00:00:00 1 rows".

ii)

```
select count(*) from books_ where author_id =1 OR author_id=2
```

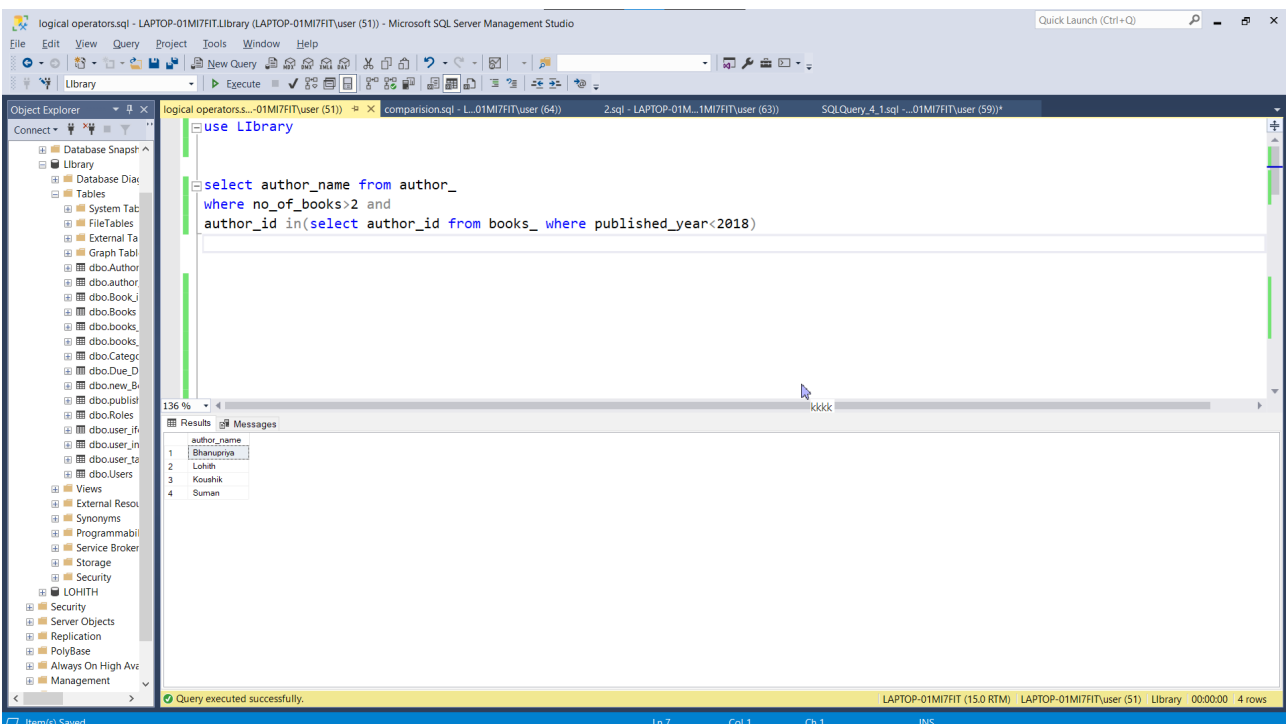
OUTPUT:-



iii)

```
select author_name from author_  
where no_of_books>2 and  
author_id in(select author_id from books_ where published_year<2018)
```

OUTPUT:-



iv)

```
select BOOK_NAME from books_ where published_year NOT BETWEEN 2000 and 2015
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL statement:

```
use Library

select BOOK_NAME from books_ where published_year NOT BETWEEN 2000 and 2015
```

The query has been executed successfully, and the results are displayed in the Results pane. The results show a list of book names:

BOOK_NAME
1 Leave me alone
2 Caught up
3 Close my eyes
4 My Band
5 Fantasy Girl

The status bar at the bottom indicates that the query was executed successfully and returned 5 rows.

v)

```
select count(*) from books_ where NOT no_of_issues<50;
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL statement:

```
use Library

select count(*) from books_ where NOT no_of_issues<50;
```

The query has been executed successfully, and the results are displayed in the Results pane. The results show a single row with a count of 2:

(No column name)
1 2

The status bar at the bottom indicates that the query was executed successfully and returned 1 row.

vi)

```
select * from books_ where category BETWEEN 200 and 300
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
use Library  
  
select * from books_ where category BETWEEN 200 and 300
```

The Results pane displays the following data:

ID	BOOK_NAME	author_id	PRICE	barcode	category	no_of_issues	published_year	bought_year
1	Natural Disaster	1	1000	2938476	209	12	2010	2012
2	Leave me alone	6	988	8563425	234	13	2010	2012

The status bar at the bottom indicates: "Query executed successfully. LAPTOP-01MI7FIT (15.0 RTM) LAPTOP-01MI7FIT\user (51) Library 00:00:00 2 rows".

vii)

```
select * from books_ where published_year BETWEEN 1996 and 2005;
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL code:

```
use Library  
  
select * from books_ where published_year BETWEEN 1996 and 2005;
```

The Results pane displays the following data:

ID	BOOK_NAME	author_id	PRICE	barcode	category	no_of_issues	published_year	bought_year
1	Fantasy Girl	8	799	432653	342	4	2001	2012
2	No Flaws	15	679	45653	564	11	2002	2004
3	Close my eyes	8	180	87657	657	29	1998	2000
4	My Band	7	890	65476	323	12	1996	2020
5	Fantasy Girl	8	799	79678	567	12	1996	2020

The status bar at the bottom indicates: "Query executed successfully. LAPTOP-01MI7FIT (15.0 RTM) LAPTOP-01MI7FIT\user (51) Library 00:00:00 5 rows".

viii)

```
select * from author_ where no_of_books>1 and author_id in(select author_id from books_
where category<500)
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL query:

```
use Library

select * from author_ where no_of_books>1 and author_id in(select author_id from books_ where category<500)
```

The query has been executed successfully, and the results are displayed in the Results pane. The results show 5 rows of data:

author_id	author_name	no_of_books
5	malli	2
6	chandra	2
7	lohihi	2
8	Bhanupriya	6
9	Lohith	8

The status bar at the bottom indicates that the query was executed successfully and returned 5 rows.

ix)

```
select BOOK_NAME from books_ where no_of_issues>10 and no_of_issues>15;
```

OUTPUT:-

The screenshot shows the Microsoft SQL Server Management Studio interface. The query editor contains the following SQL query:

```
use Library

select BOOK_NAME from books_ where no_of_issues>10 and no_of_issues>15;
```

The query has been executed successfully, and the results are displayed in the Results pane. The results show 7 rows of data:

BOOK_NAME
In the Dark
Caught up
Tom Up
Close my eyes
Drop it
Caught up
Close my eyes

The status bar at the bottom indicates that the query was executed successfully and returned 7 rows.