

create database books;

Use books;

create table library

```
-> (  
-> library_id int primary key,  
-> Author_name varchar(30),  
-> Book_name varchar(50),  
-> Price float,  
-> Customer_name varchar(20),  
-> Customer_phone_number bigint,  
-> Received_date date,  
-> Return_date date  
-> );
```

```
mysql> desc library;
```

Field	Type	Null	Key	Default	Extra
library_id	int	NO	PRI	NULL	
Author_name	varchar(30)	YES		NULL	
Book_name	varchar(50)	YES		NULL	
Price	float	YES		NULL	
Customer_name	varchar(20)	YES		NULL	
Customer_phone_number	bigint	YES		NULL	
Received_date	date	YES		NULL	
Return_date	date	YES		NULL	

8 rows in set (0.25 sec)

> insert into library values(1,'Narayana Murthy','A Better India:A Better World',2000,'James',1122333445,'2009-01-14','2009-03-21');

> insert into library values(2,'E.M.Foster','A Passage to India',1000,'Robert',1422333445,'2009-01-10','2009-01-20');

> insert into library values(3,'Amrita Pritam','A Revenue Stamp',1500,'John',1422333445,'2009-02-10','2009-02-11');

> insert into library values(4,'Amrita Pritam','Death of a City',800,'Michael',3122323445,'2009-02-10','2009-02-16');

> insert into library values(5,'Amrita Pritam','Pinjar',1000,'David',2142333445,'2010-02-11','2010-02-19');

> insert into library values(6,'Vikram Seth','A Suitable Boy',2500,'William',4122333445,'2011-04-10','2011-05-01');

```
> insert into library values(7,'Charles Darwin','A Tale of Two  
Cities',3000,'Richard',5222333445,'2011-05-05','2011-06-26');  
  
> insert into library values(8,'David Copperfield','Charles  
Darwin',1200,'Joseph',6522333445,'2012-01-10','2012-02-12');  
  
> insert into library values(9,'Charles Darwin','Oliver  
Twist',500,'Thomas',7122333446,'2013-08-10','2013-08-10');  
  
> insert into library values(10,'Charles Darwin','Origin of  
Species',1700,'Charles',3125333445,'2014-09-11','2014-09-12');  
  
> insert into library values(11,'Louis Fisher','A Week with  
Gandhi',800,'Christopher',1182333445,'2015-05-29','2015-07-01');  
  
> insert into library values(12,'Guy de Maupassant','A Womans  
Life',2000,'Daniel',9122333445,'2016-12-18','2016-12-19');  
  
> insert into library values(13,'Mohan Rakesh','Aadhe  
Adhure',2500,'Matthew',9125333445,'2016-12-19','2016-12-29');  
  
> insert into library values(14,'Arthur Conan Doyle','Adventures of Sherlock  
Holmes',1000,'Anthony',9992333445,'2017-01-01',  
-> '2017-02-15');  
  
> insert into library values(15,'Mark Twain','Adventures of Tom  
Sawyer',700,'Mark',4182333445,'2018-12-19','2018-12-20');  
  
> insert into library values(16,'Abul Fazl','Ain-i-  
Akbari',800,'Donald',522333445,'2019-01-20','2019-01-21');  
  
> insert into library values(17,'Abul  
Fazl','Akbarname',1000,'Steven',4922333445,'2020-0220','2020-03-20');  
  
> insert into library values(18,'Lewis Carrol','Alice in  
Wonderland',1800,'Paul',1112333445,'2020-04-17','2021-04-19');
```

> insert into library values(19,'Bhagat Singh','An Introduction To Dreamland',2000,'Andrew',1772333445,'2022-06-18','2022-06-19');

> insert into library values(20,'Bankim Chandra Chatterjee','Anand Math',2000,'Joshua',5552333445,'2022-07-19','2022-07-26');

> insert into library values(21,'Leo Tolstoy','Anna Karenina',1500,'Kenneth',6622333445,'2022-08-19','2022-08-19');

> insert into library values(22,'Leo Tolstoy','War and Peace',1000,'Kevin',8822333445,'2022-09-11','2022-09-11');

> insert into library values(23,'George Bernard Shaw','Apple Cart',700,'Brian',9922333445,'2022-10-19','2022-10-20');

> insert into library values(24,'George Bernard Shaw','Arms and the Man',3000,'George',1122443445,'2022-11-19','2022-11-22');

> insert into library values(25,'George Bernard Shaw','Man and Superman',2600,'Timothy',1177333445,'2022-12-19','2022-12-19');

> insert into library values(26,'Jules Verne','Around the World in Eighty Days',700,'Ronald',5522333445,'2023-01-01','2023-01-01');

> insert into library values(27,'Kautilya','Arthshastra',500,'Edward',1002333445,'2023-02-02','2023-02-23');

> insert into library values(28,'Gunnar Myrdal','Asian Drama',1000,'Jason',1122333400,'2023-03-16','2023-03-17');

> insert into library values(29,'Yogananda Paramhans','Autobiography of a Yogi',1000,'Jeffrey',1122333488,'2023-04-11','2023-04-12');

```
> insert into library
values(30,'Babur','Baburnama',2500,'Ryan',1122333466,'2023-05-01','2023-05-14');
```

library_id	Author_name	Book_name	Price	Customer_name	Customer_phone_number	Received_date	Return_date
1	Narayana Murthy	A Better India:A Better World	2000	James	1122333445	2009-01-1	
2	E.M.Foster	A Passage to India	1000	Robert	1422333445	2009-01-1	
3	Amrita Pritam	A Revenue Stamp	1500	John	1422333445	2009-02-1	
4	Amrita Pritam	Death of a City	800	Michael	3122323445	2009-02-1	
5	Amrita Pritam	Pinjar	1000	David	2142333445	2010-02-1	
6	Vikram Seth	A Suitable Boy	2500	William	4122333445	2011-04-1	
7	Charles Darwin	A Tale of Two Cities	3000	Richard	5222333445	2011-05-0	
8	David Copperfield	Charles Darwin	1200	Joseph	6522333445	2012-01-1	
9	Charles Darwin	Oliver Twist	500	Thomas	7122333446	2013-08-1	
10	Charles Darwin	Origin of Species	1700	Charles	3125333445	2014-09-1	
11	Louis Fisher	A Week with Gandhi	800	Christopher	1182333445	2015-05-2	
12	Guy de Maupassant	A Womans Life	2000	Daniel	9122333445	2016-12-1	
13	Mohan Rakesh	Aadhe Adhure	2500	Matthew	9125333445	2016-12-1	
14	Arthur Conan Doyle	Adventures of Sherlock Holmes	1000	Anthony	9992333445	2017-01-0	
15	Mark Twain	Adventures of Tom Sawyer	700	Mark	4182333445	2018-12-1	
16	Abul Fazl	Ain-i-Akbari	800	Donald	522333445	2019-01-2	
17	Abul Fazl	Akbarnama	1000	Steven	4922333445	2020-02-2	
18	Lewis Carrol	Alice in Wonderland	1800	Paul	1112333445	2020-04-1	
19	Bhagat Singh	An Introduction To Dreamland	2000	Andrew	1772333445	2022-06-1	
20							

```
>alter table library
modify Book_name varchar(40);
>alter table library
rename column Customer_phone_number to Cus_phn_no;
>alter table library
rename column Customer_name to Cus_name;
>alter table library
rename column library_id to l_id;
>select *
from library;
```

Id	Author_name	Book_name	Price	Cus_name	Cus_phn_no	Received_date	Return_date
1	Narayana Murthy	A Better India:A Better World	2000	James	1122333445	2009-01-14	2009-03-21
2	E.M.Foster	A Passage to India	1000	Robert	1422333445	2009-01-10	2009-01-20
3	Amrita Pritam	A Revenue Stamp	1500	John	1422333445	2009-02-10	2009-02-11
4	Amrita Pritam	Death of a City	800	Michael	3122323445	2009-02-10	2009-02-16
5	Amrita Pritam	Pinjar	1000	David	2142333445	2010-02-11	2010-02-19
6	Vikram Seth	A Suitable Boy	2500	William	4122333445	2011-04-10	2011-05-01
7	Charles Darwin	A Tale of Two Cities	3000	Richard	5222333445	2011-05-05	2011-06-26
8	David Copperfield	Charles Darwin	1200	Joseph	6522333445	2012-01-10	2012-02-12
9	Charles Darwin	Oliver Twist	500	Thomas	7122333446	2013-08-10	2013-08-10
10	Charles Darwin	Origin of Species	1700	Charles	3125333445	2014-09-11	2014-09-12
11	Louis Fisher	A Week with Gandhi	800	Christopher	1182333445	2015-05-29	2015-07-01
12	Guy de Maupassant	A Womans Life	2000	Daniel	9122333445	2016-12-18	2016-12-19
13	Mohan Rakesh	Aadhe Adhure	2500	Matthew	9125333445	2016-12-19	2016-12-29
14	Arthur Conan Doyle	Adventures of Sherlock Holmes	1000	Anthony	9992333445	2017-01-01	2017-02-15
15	Mark Twain	Adventures of Tom Sawyer	700	Mark	4182333445	2018-12-19	2018-12-20
16	Abul Fazl	Ain-i-Akbari	800	Donald	522333445	2019-01-20	2019-01-21
17	Abul Fazl	Akbarnama	1000	Steven	4922333445	2020-02-20	2020-03-20
18	Lewis Carroll	Alice in Wonderland	1800	Paul	1112333445	2020-04-17	2021-04-19
19	Bhagat Singh	An Introduction To Dreamland	2000	Andrew	1772333445	2022-06-18	2022-06-19
20	Bankim Chandra Chatterjee	Anand Math	2000	Joshua	5552333445	2022-07-19	2022-07-26
21	Leo Tolstoy	Anna Karenina	1500	Kenneth	6622333445	2022-08-19	2022-08-19
22	Leo Tolstoy	War and Peace	1000	Kevin	8822333445	2022-09-11	2022-09-11
23	George Bernard Shaw	Apple Cart	700	Brian	9922333445	2022-10-19	2022-10-20
24	George Bernard Shaw	Arms and the Man	3000	George	1122443445	2022-11-19	2022-11-22
25	George Bernard Shaw	Man and Superman	2600	Timothy	1177333445	2022-12-19	2022-12-19
26	Jules Verne	Around the World in Eighty Days	700	Ronald	5522333445	2023-01-01	2023-01-01
27	Kautilya	Arthshastra	500	Edward	1002333445	2023-02-02	2023-02-23
28	Gunnar Myrdal	Asian Drama	1000	Jason	1122333400	2023-03-16	2023-03-17
29	Yogananda Paramhans	Autobiography of a Yogi	1000	Jeffrey	1122333488	2023-04-11	2023-04-12
30	Babur	Baburnama	2500	Ryan	1122333466	2023-05-01	2023-05-14

Queries:-

1) Write a query to display the author's name, book name and price by increasing the price of 1000 rupees for every book.

> select Author_name,Book_name,price+1000 as new_price

-> from library;

Author_name	Book_name	new_price
Narayana Murthy	A Better India:A Better world	3000
E.M.Foster	A Passage to India	2000
Amrita Pritam	A Revenue Stamp	2500
Amrita Pritam	Death of a City	1800
Amrita Pritam	Pinjar	2000
Vikram Seth	A Suitable Boy	3500
Charles Darwin	A Tale of Two Cities	4000
David Copperfield	Charles Darwin	2200
Charles Darwin	Oliver Twist	1500
Charles Darwin	Origin of Species	2700
Louis Fisher	A Week with Gandhi	1800
Guy de Maupassant	A Womans Life	3000
Mohan Rakesh	Aadhe Adhure	3500
Arthur Conan Doyle	Adventures of Sherlock Holmes	2000
Mark Twain	Adventures of Tom Sawyer	1700
Abul Fazl	Ain-i-Akbari	1800
Abul Fazl	Akbarnama	2000
Lewis Carroll	Alice in Wonderland	2800
Bhagat Singh	An Introduction To Dreamland	3000
Bankim Chandra Chatterjee	Anand Math	3000
Leo Tolstoy	Anna Karenina	2500
Leo Tolstoy	War and Peace	2000
George Bernard Shaw	Apple Cart	1700
George Bernard Shaw	Arms and the Man	4000
George Bernard Shaw	Man and Superman	3600
Jules Verne	Around the World in Eighty Days	1700
Kautilya	Arthshastra	1500
Gunnar Myrdal	Asian Drama	2000
Yogananda Paramhans	Autobiography of a Yogi	2000
Babur	Baburnama	3500

30 rows in set (0.17 sec)

2) Write a query to display the details of book by reducing the price of 500 on every book which is written by "Mohan Rakesh".

```
> select price-500 as new_price  
-> from library  
-> where Author name="Mohan Rakesh";
```

```
+-----+  
| new_price |  
+-----+  
|      2000 |  
+-----+  
1 row in set (0.00 sec)
```

3) Write a query to display details of book by giving the discount of 20% on price for every book which is written by "Narayana Murthy".

```
> select price-(price*20/100)  
-> from library  
-> where Author name="Narayana Murthy";
```

```
+-----+  
| price-(price*20/100) |  
+-----+  
|          1600 |  
+-----+  
1 row in set (3.31 sec)
```

4) Write a query to display details of book which are written by "Vikram Seth".

```
> select *  
-> from library  
-> where Author name="Vikram Seth";
```

```
+-----+-----+-----+-----+-----+-----+-----+  
| l_id | Author_name | Book_name | Price | Cus_name | Cus_phn_no | Received_date | Return_date |  
+-----+-----+-----+-----+-----+-----+-----+  
| 6 | Vikram Seth | A Suitable Boy | 2500 | William | 4122333445 | 2011-04-10 | 2011-05-01 |  
+-----+-----+-----+-----+-----+-----+-----+  
1 row in set (0.03 sec)
```

5) Write a query to display the customer's name who has purchased the books whose price is less than 1000 rupees.

```
> select Cus_name  
-> from library  
-> where price<1000;
```

```
+-----+  
| Cus_name |  
+-----+  
| Michael |  
| Thomas |  
| Christopher |  
| Mark |  
| Donald |  
| Brian |  
| Ronald |  
| Edward |  
+-----+  
8 rows in set (0.05 sec)
```


6) Write a query to display the author's name and book name whose price is greater than 2500 rupees.

```
>select Author_name,Book_name
-> from library
-> where price>2500;
```

Author_name	Book_name
Charles Darwin	A Tale of Two Cities
George Bernard Shaw	Arms and the Man
George Bernard Shaw	Man and Superman

3 rows in set (0.01 sec)

7) Write a query to display details of book whose price is 1000 rupees and which is written by the author "E.M. Foster".

```
>select *
-> from library
-> where price=1000 and Author name="E.M.Foster";
```

l_id	Author_name	Book_name	Price	Cus_name	Cus_phn_no	Received_date	Return_date
2	E.M.Foster	A Passage to India	1000	Robert	1422333445	2009-01-10	2009-01-20

1 row in set (0.02 sec)

8) Write a query to display details of book which are written by "Charles Darwin" either "Leo Tolstoy".

```
>select *
-> from library
-> where Author name="Charles Darwin"or Author name="Leo Tolstoy";
```

l_id	Author_name	Book_name	Price	Cus_name	Cus_phn_no	Received_date	Return_date
7	Charles Darwin	A Tale of Two Cities	3000	Richard	5222333445	2011-05-05	2011-06-26
9	Charles Darwin	Oliver Twist	500	Thomas	7122333446	2013-08-10	2013-08-10
10	Charles Darwin	Origin of Species	1700	Charles	3125333445	2014-09-11	2014-09-12
21	Leo Tolstoy	Anna Karenina	1500	Kenneth	6622333445	2022-08-19	2022-08-19
22	Leo Tolstoy	War and Peace	1000	Kevin	8822333445	2022-09-11	2022-09-11

5 rows in set (0.06 sec)

9) Write a query to display the details of book which is written by "Amrita Pritam" either "Bhagat Singh" but the price should be more than 1000 rupees.

```
>select *
-> from library
-> where (Author_name="Amrita Pritam"or Author_name="Bhagat Singh")and price>1000;
```

l_id	Author_name	Book_name	Price	Cus_name	Cus_phn_no	Received_date	Return_date
3	Amrita Pritam	A Revenue Stamp	1500	John	1422333445	2009-02-10	2009-02-11
19	Bhagat Singh	An Introduction To Dreamland	2000	Andrew	1772333445	2022-06-18	2022-06-19

2 rows in set (0.06 sec)

10) Write a query to display the customer's name who has purchased the book after "2009-02-10" before "2013-08-10".

> select Cus_name

-> from library

-> where Received_date between "2009-02-10" and "2013-08-10";

Cus_name
John
Michael
David
William
Richard
Joseph
Thomas

7 rows in set (0.02 sec)

11) Write a query to display details of book whose price is 1000, 2000 or 3000.

> select *

-> from library

-> where price in(1000,2000,3000);

l_id	Author_name	Book_name	Price	Cus_name	Cus_phn_no	Received_date	Return_date
1	Narayana Murthy	A Better India:A Better World	2000	James	1122333445	2009-01-14	2009-03-21
2	E.M.Foster	A Passage to India	1000	Robert	1422333445	2009-01-10	2009-01-20
5	Amrita Pritam	Pinjar	1000	David	2142333445	2010-02-11	2010-02-19
7	Charles Darwin	A Tale of Two Cities	3000	Richard	5222333445	2011-05-05	2011-06-26
12	Guy de Maupassant	A Womans Life	2000	Daniel	9122333445	2016-12-18	2016-12-19
14	Arthur Conan Doyle	Adventures of Sherlock Holmes	1000	Anthony	9992333445	2017-01-01	2017-02-15
17	Abul Fazl	Akbarnama	1000	Steven	4922333445	2020-02-20	2020-03-20
19	Bhagat Singh	An Introduction To Dreamland	2000	Andrew	1772333445	2022-06-18	2022-06-19
20	Bankim Chandra Chatterjee	Anand Math	2000	Joshua	5552333445	2022-07-19	2022-07-26
22	Leo Tolstoy	War and Peace	1000	Kevin	8822333445	2022-09-11	2022-09-11
24	George Bernard Shaw	Arms and the Man	3000	George	1122443445	2022-11-19	2022-11-22
28	Gunnar Myrdal	Asian Drama	1000	Jason	1122333400	2023-03-16	2023-03-17
29	Yogananda Paramhans	Autobiography of a Yogi	1000	Jeffrey	1122333488	2023-04-11	2023-04-12

13 rows in set (0.00 sec)

12) Write a query to display details of book whose price is not 1500,2500 or 3000.

> select *

-> from library

-> where price not in(1500,2500,3000);

l_id	Author_name	Book_name	Price	Cus_name	Cus_phn_no	Received_date	Return_date
1	Narayana Murthy	A Better India:A Better World	2000	James	1122333445	2009-01-14	2009-03-21
2	E.M.Foster	A Passage to India	1000	Robert	1422333445	2009-01-10	2009-01-20
4	Amrita Pritam	Death of a City	800	Michael	3122323445	2009-02-10	2009-02-16
5	Amrita Pritam	Pinjar	1000	David	2142333445	2010-02-11	2010-02-19
8	David Copperfield	Charles Darwin	1200	Joseph	6522333445	2012-01-10	2012-02-12
9	Charles Darwin	Oliver Twist	500	Thomas	7122333446	2013-08-10	2013-08-10
10	Charles Darwin	Origin of Species	1700	Charles	3125333445	2014-09-11	2014-09-12
11	Louis Fisher	A Week with Gandhi	800	Christopher	1182333445	2015-05-29	2015-07-01
12	Guy de Maupassant	A Womans Life	2000	Daniel	9122333445	2016-12-18	2016-12-19
14	Arthur Conan Doyle	Adventures of Sherlock Holmes	1000	Anthony	9992333445	2017-01-01	2017-02-15
15	Mark Twain	Adventures of Tom Sawyer	700	Mark	4182333445	2018-12-19	2018-12-20
16	Abul Fazl	Ain-i-Akbari	800	Donald	522333445	2019-01-20	2019-01-21
17	Abul Fazl	Akbarnama	1000	Steven	4922333445	2020-02-20	2020-03-20
18	Lewis Carrol	Alice in Wonderland	1800	Paul	1112333445	2020-04-17	2021-04-19
19	Bhagat Singh	An Introduction To Dreamland	2000	Andrew	1772333445	2022-06-18	2022-06-19
20	Bankim Chandra Chatterjee	Anand Math	2000	Joshua	5552333445	2022-07-19	2022-07-26
22	Leo Tolstoy	War and Peace	1000	Kevin	8822333445	2022-09-11	2022-09-11
23	George Bernard Shaw	Apple Cart	700	Brian	9922333445	2022-10-19	2022-10-20
25	George Bernard Shaw	Man and Superman	2600	Timothy	1177333445	2022-12-19	2022-12-19
26	Jules Verne	Around the World in Eighty Days	700	Ronald	5522333445	2023-01-01	2023-01-01
27	Kautilya	Arthshastra	500	Edward	1002333445	2023-02-02	2023-02-23
28	Gunnar Myrdal	Asian Drama	1000	Jason	1122333400	2023-03-16	2023-03-17
29	Yogananda Paramhans	Autobiography of a Yogi	1000	Jeffrey	1122333488	2023-04-11	2023-04-12

23 rows in set (0.00 sec)

13) Write a query to display unique author name's whose name starts with "A" or "C".

> select Author_name

-> from library

-> where Author_name like "A%" or Author_name like "C%";

Author_name
Amrita Pritam
Amrita Pritam
Amrita Pritam
Charles Darwin
Charles Darwin
Charles Darwin
Arthur Conan Doyle
Abul Fazl
Abul Fazl

9 rows in set (0.01 sec)

14) Write a query to display the customer name's whose name starts with "T" and ends with "S".

> select Cus_name

-> from library

-> where Cus_name like "T%" and Cus_name like "%s";

Cus_name
Thomas

1 row in set (0.00 sec)

15) Write a query to display the book name's which have "ven" or "ies" in it.

> select Book_name

-> from library

-> where Book_name like "%ven%" or Book_name like "%ies%";

```
+-----+
| Book_name |
+-----+
| A Revenue Stamp |
| A Tale of Two Cities |
| Origin of Species |
| Adventures of Sherlock Holmes |
| Adventures of Tom Sawyer |
+-----+
5 rows in set (0.01 sec)
```

16) Write a query to display the book name's which contains 10 characters only.

> select Book_name

-> from library

-> where Book_name like "_____";

```
+-----+
| Book_name |
+-----+
| Anand Math |
| Apple Cart |
+-----+
2 rows in set (0.06 sec)
```

17) Write a query to display author name and book name's which are purchased by "Kevin" or either "Json".

> select Author_name, Book_name

-> from library

-> where Cus_name="Kevin" or Cus_name="Json";

```
+-----+-----+
| Author_name | Book_name |
+-----+-----+
| Leo Tolstoy | War and Peace |
+-----+-----+
1 row in set (0.01 sec)
```

18) Write a query to display the unique customer name's who purchased the book's which is written by "Charles Darwin" or "Leo Tolstoy" and price should be more than 1000 and sort the result in the descending order based on the customer names.

> select Cus_name

-> from library

-> where (Author_name="Charles Darwin" or Author_name="Leo Tolstoy") and price > 1000

-> order by Cus_name desc;

```
+-----+
| Cus_name |
+-----+
| Richard |
| Kenneth |
| Charles |
+-----+
3 rows in set (0.11 sec)
```

19) Write a query to display the received date and end of the book which is purchased by “Anthony” and price is 1000 or above.

> select Received_date,Book_name

-> from library

-> where Cus_name="Anthony"and price>=1000;

```
+-----+-----+
| Received_date | Book_name |
+-----+-----+
| 2017-01-01    | Adventures of Sherlock Holmes |
+-----+-----+
1 row in set (0.01 sec)
```

20) Write a query to display the author’s name and book name, which is purchased by a customer whose name starts with “W” or “S” and sort the result in the ascending order based on the author’s name.

> select Author_name,Book_name

-> from library

-> where Cus_name like"W%"or Cus_name like"S%"

-> order by Author_name asc;

```
+-----+-----+
| Author_name | Book_name |
+-----+-----+
| Abul Fazl   | Akbarnama |
| Vikram Seth | A Suitable Boy |
+-----+-----+
2 rows in set (0.01 sec)
```