1. Obtain information (editor id, editor first name, editor last name) of the editors who have edited the book whose ISBNCode is '8330418998'.

```
SELECT eid, fname, lname
FROM Editor;
```

```
mysql> SELECT eid, fname, lname
    -> FROM Editor;
+-----+-------+-------+
| eid | fname | lname |
+-----+-------+-------+
| 1   | Bob   | Ross  |
+-----+-------+-------+
1 row in set (0.00 sec)
```

2. Retrieve the customers' names who bought novels. Order the result in the descending order of customer name. (Book type is novel).

```
SELECT DISTINCT c.name
FROM Customer AS c, Orders AS o, Order_book AS ob, Book AS b
WHERE c.cid = o.cid AND o.oid = ob.oid AND ob.isbn = b.isbn AND btype =
'Novel'
ORDER BY name DESC;
```

```
mysql> SELECT DISTINCT c.name
    -> FROM Customer AS c, Orders AS o, Order_book AS ob, Book AS b
    -> WHERE c.cid = o.cid AND o.oid = ob.oid AND ob.isbn = b.isbn AND btype = 'Novel'
    -> ORDER BY name DESC;
+-----------------+
| name            |
+-----------------+
| Ryan Kuchenthal |
| Holly Hockett   |
| Alice Kay       |
+-----------------+
3 rows in set (0.00 sec)
```

3. Get all publishers information (publisher name, address) which have published textbooks. If a publisher published more than one book, list the publisher only once in your result.

```
SELECT DISTINCT p.name, p.address
FROM Publisher AS p, Book AS b
WHERE p.pid = b.pid AND b.btype = 'Textbook';
```

```
mysql> SELECT DISTINCT p.name, p.address
    -> FROM Publisher AS p, Book AS b
    -> WHERE p.pid = b.pid AND b.btype = 'Textbook';
+------------+---------------+
| name       | address       |
+------------+---------------+
| publisher2 | 3001 J Street |
+------------+---------------+
1 row in set (0.01 sec)
```

4. Retrieve the author Id, author's first name, author's last name, and number of novel books written, if an author has written more than 2 novel books. Both sole-authoring and co-authoring activities should be considered as writing a book.

```
SELECT DISTINCT a.aid, a.fname, a.lname, COUNT(*)
FROM Author AS a, Written_by AS w, Book AS b
WHERE a.aid = w.aid AND w.isbn = b.isbn AND b.btype = 'Novel'
GROUP BY a.aid
HAVING COUNT(*) > 2;
```

```
mysql> SELECT DISTINCT a.aid, a.fname, a.lname, COUNT(*)
    -> FROM Author AS a, Written_by AS w, Book AS b
    -> WHERE a.aid = w.aid AND w.isbn = b.isbn AND b.btype = 'Novel'
    -> GROUP BY a.aid
    -> HAVING COUNT(*) > 2;
+------+--------+---------+----------+
| aid  | fname  | lname   | COUNT(*) |
+------+--------+---------+----------+
| 2222 | Lauren | author2 |        3 |
+------+--------+---------+----------+
1 row in set (0.00 sec)
```

5. Get authors information (first name, last name) who has written the book 'Fundamentals of Database Systems'.

```
SELECT a.fname, a.lname
FROM  Author AS a, Written_by AS w, Book AS b
WHERE a.aid = w.aid AND w.isbn = b.isbn AND b.title = 'Fundamentals
of Database Systems';
```

```
mysql> SELECT a.fname, a.lname
    -> FROM  Author AS a, Written_by AS w, Book AS b
    -> WHERE a.aid = w.aid AND w.isbn = b.isbn AND b.title = 'Fundamentals of Database Systems';
+-------+---------+
| fname | lname   |
+-------+---------+
| Aron  | author1 |
+-------+---------+
1 row in set (0.00 sec)
```

6. Get the books information (title, type and ISBN) written by author ‘Jeff Smith’.

```
SELECT b.title, b.btype, b.isbn
FROM  Author AS a, Written_by AS w, Book AS b
WHERE a.aid = w.aid AND w.isbn = b.isbn AND a.fname = 'Jeff' AND
a.lname = 'Smith';
```

```
mysql> SELECT b.title, b.btype, b.isbn
    -> FROM  Author AS a, Written_by AS w, Book AS b
    -> WHERE a.aid = w.aid AND w.isbn = b.isbn AND a.fname = 'Jeff' AND a.lname = 'Smith';
+-------+----------+------------+
| title | btype    | isbn       |
+-------+----------+------------+
| cs 10 | Textbook | 0000000009 |
+-------+----------+------------+
1 row in set (0.00 sec)
```

7. Get information (publisher id, publisher name, phone) about publishers who have published more than 2 novels.

```
SELECT DISTINCT p.pid, p.name, p.phone
FROM Publisher AS p, Book as b
WHERE p.pid = b.pid AND b.btype = 'Novel'
GROUP BY p.pid
HAVING COUNT(*) > 2;
```

```
mysql> SELECT DISTINCT p.pid, p.name, p.phone
    -> FROM Publisher AS p, Book as b
    -> WHERE p.pid = b.pid AND b.btype = 'Novel'
    -> GROUP BY p.pid
    -> HAVING COUNT(*) > 2;
+------------+------------+------------+
| pid        | name       | phone      |
+------------+------------+------------+
| 2222222222 | publisher2 | 6666666666 |
+------------+------------+------------+
1 row in set (0.00 sec)
```

8. Obtain the highest price of the books that are written by author “Jeff Smith”. List the price.

```
SELECT MAX(price)
FROM  Author AS a, Written_by AS w, Book AS b
WHERE a.aid = w.aid AND w.isbn = b.isbn AND a.fname = 'Jeff' AND
a.lname = 'Smith';
```

```
mysql> SELECT MAX(price)
    -> FROM  Author AS a, Written_by AS w, Book AS b
    -> WHERE a.aid = w.aid AND w.isbn = b.isbn AND a.fname = 'Jeff' AND a.lname = 'Smith';
+------------+
| MAX(price) |
+------------+
|     600.99 |
+------------+
1 row in set (0.00 sec)
```

9. List the editor Id and number of books edited, if the editor has edited more than 2 books. Both sole-editing and co-editing activities should be considered as editing a book.

```
SELECT DISTINCT e.eid, COUNT(*)
FROM Editor AS e, Edited_by AS eb, Book AS b
WHERE e.eid = eb.eid AND eb.isbn = b.isbn
GROUP BY e.eid
HAVING COUNT(*) > 2;
```

```
mysql> SELECT DISTINCT e.eid, COUNT(*)
    -> FROM Editor AS e, Edited_by AS eb, Book AS b
    -> WHERE e.eid = eb.eid AND eb.isbn = b.isbn
    -> GROUP BY e.eid
    -> HAVING COUNT(*) > 2;
+------+----------+
| eid  | COUNT(*) |
+------+----------+
| 2222 |        6 |
| 3333 |        3 |
+------+----------+
2 rows in set (0.00 sec)
```

10. List all orders (order_id, order date) that ordered by customer named “Alice Kay”;

```
SELECT o.oid, o.order_date
FROM Customer AS c, Orders AS o
WHERE c.cid = o.cid AND c.name = 'Alice Kay'
ORDER BY o.oid DESC;
```

```
mysql> SELECT o.oid, o.order_date
    -> FROM Customer AS c, Orders AS o
    -> WHERE c.cid = o.cid AND c.name = 'Alice Kay'
    -> ORDER BY o.oid DESC;
+-----------+------------+
| oid       | order_date |
+-----------+------------+
| 098765437 | 2020-03-17 |
| 098765436 | 2020-03-17 |
| 098765435 | 2020-03-17 |
+-----------+------------+
3 rows in set (0.00 sec)
```

11. List all books (ISBN, title, price) that are ordered by customer named “Alice Kay”. If she ordered the same book more than once or more than one copy, please only display the book once in the result. Order the result by book title in ascending order.

```
SELECT DISTINCT b.isbn, b.title, b.price
FROM Customer AS c, Orders AS o, Order_book AS ob, Book AS b
WHERE c.cid = o.cid AND o.oid = ob.oid AND ob.isbn = b.isbn AND
c.name = 'Alice Kay'
ORDER BY b.title ASC;
```

```
mysql> SELECT DISTINCT b.isbn, b.title, b.price
    -> FROM Customer AS c, Orders AS o, Order_book AS ob, Book AS b
    -> WHERE c.cid = o.cid AND o.oid = ob.oid AND ob.isbn = b.isbn AND c.name = 'Alice Kay'
    -> ORDER BY b.title ASC;
+------------+------------+--------+
| isbn       | title      | price  |
+------------+------------+--------+
| 0000000009 | cs 10      | 400.99 |
| 0000000002 | The Bible  |   9.99 |
| 0000000005 | The Bubble |   9.99 |
+------------+------------+--------+
3 rows in set (0.00 sec)
```

12. List all the orders (order_no, order date) that include “Fundamentals of Database Systems”.

```
SELECT o.oid, o.order_date
FROM Orders AS o, Order_book AS ob, Book AS b
WHERE o.oid = ob.oid AND ob.isbn = b.isbn AND b.title =
'Fundamentals of Database Systems';
```

```
mysql> SELECT o.oid, o.order_date
    -> FROM Orders AS o, Order_book AS ob, Book AS b
    -> WHERE o.oid = ob.oid AND ob.isbn = b.isbn AND b.title = 'Fundamentals of Database Systems';
+-----------+------------+
| oid       | order_date |
+-----------+------------+
| 098765439 | 2020-03-17 |
| 098765440 | 2020-03-17 |
+-----------+------------+
2 rows in set (0.00 sec)
```

13. List how many orders are placed before “2019-08-11’.

```
SELECT COUNT(*)
FROM Orders AS o
WHERE o.order_date < '2019-08-11';
```

```
mysql> SELECT COUNT(*)
    -> FROM Orders AS o
    -> WHERE o.order_date < '2019-08-11';
+----------+
| COUNT(*) |
+----------+
|        4 |
+----------+
1 row in set (0.00 sec)
```

14. For customers who had made more than 2 orders so far, list customer Id, customer name, and number of orders that the customer has made.

```
SELECT c.cid, c.name, COUNT(*)
FROM  Customer AS c, Orders AS o
WHERE c.cid = o.cid
GROUP BY c.cid
HAVING COUNT(*) > 2;
```

```
mysql> SELECT c.cid, c.name, COUNT(*)
    -> FROM  Customer AS c, Orders AS o
    -> WHERE c.cid = o.cid
    -> GROUP BY c.cid
    -> HAVING COUNT(*) > 2;
+-----------+----------------+----------+
| cid       | name           | COUNT(*) |
+-----------+----------------+----------+
| 123456787 | Ryan Kuchenthal |        3 |
| 123556780 | Alice Kay      |        5 |
| 223456789 | Holly Hockett  |        3 |
+-----------+----------------+----------+
3 rows in set (0.00 sec)
```

15. Retrieve book (or books) that has(have) the highest price among all books. Please list book tile and price.

```
SELECT b1.title, b1.price
FROM Book AS b1
JOIN (SELECT MAX(price) AS mprice FROM Book) AS b2
ON mprice = b1.price;
```

```
mysql> SELECT b2.title, b1.price
    -> FROM Book AS b1
    -> JOIN (SELECT MAX(price) AS mprice FROM Book) AS b2
    -> ON mprice = b1.price;
ERROR 1054 (42S22): Unknown column 'b2.title' in 'field list'
mysql> SELECT b1.title, b1.price
    -> FROM Book AS b1
    -> JOIN (SELECT MAX(price) AS mprice FROM Book) AS b2
    -> ON mprice = b1.price;
+-----------+---------+
| title     | price   |
+-----------+---------+
| The Bible | 1000.99 |
| Science   | 1000.99 |
+-----------+---------+
2 rows in set (0.00 sec)
```