

1) Retrieve the drugs' information (trade name and formula) which are manufactured by company "Pfizer". Order the result by trade name in descending order.

```
SELECT trade_name, formula
FROM drug
WHERE pname = 'Pfizer'
ORDER BY trade_name DESC;
```

```
mysql> SELECT trade_name, formula
-> FROM drug
-> WHERE pname = 'Pfizer'
-> ORDER BY trade_name DESC;
+-----+-----+
| trade_name | formula |
+-----+-----+
| these      | Zoodler |
| that       | Some formula |
| Ibuprofen  | sh0sle49 |
+-----+-----+
3 rows in set (0.00 sec)
```

2) List drug information (Pharmaceutical company name, trade name, formula) that has been prescribed by at least one doctor.

```
SELECT DISTINCT d.pname, d.trade_name, d.formula
FROM drug AS d, consist_of as c, prescription as p
WHERE d.pname = c.pname AND d.trade_name = c.trade_name AND c.dssn = p.dssn AND
c.pre_no = p.pre_no
GROUP BY d.pname, d.trade_name, d.formula
HAVING COUNT(*) > 0;
```

```
mysql> SELECT DISTINCT d.pname, d.trade_name, d.formula
-> FROM drug AS d, consist_of as c, prescription as p
-> WHERE d.pname = c.pname AND d.trade_name = c.trade_name AND c.dssn = p.dssn AND c.pre_no = p.pre_no
-> GROUP BY d.pname, d.trade_name, d.formula
-> HAVING COUNT(*) > 0;
+-----+-----+-----+
| pname | trade_name | formula |
+-----+-----+-----+
| Advil | things     | A_formula |
| Pfizer | Ibuprofen  | sh0sle49 |
| Pfizer | these      | Zoodler   |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

3) Obtain all the prescription drugs (trade name, company name and prescription date) given by Doctor "Kate Elmasri".

```
SELECT c.trade_name, c.pname, p.pdate
FROM prescription AS p JOIN doctor as d ON d.dssn = p.dssn
JOIN consist_of as c ON p.dssn = c.dssn AND p.pre_no = c.pre_no
WHERE d.dname = 'Kate Elmasri';
```

```
mysql> SELECT c.trade_name, c.pname, p.pdate
-> FROM prescription AS p JOIN doctor as d ON d.dssn = p.dssn
-> JOIN consist_of as c ON p.dssn = c.dssn AND p.pre_no = c.pre_no
-> WHERE d.dname = 'Kate Elmasri';
```

trade_name	pname	pdate
these	Phizer	2004-01-15
things	Advil	2023-05-16

```
2 rows in set (0.00 sec)
```

4) Retrieve all the drugs (trade\_name, formula) sold by "Walmart". ("Walmart" is pharmacy name).

```
SELECT d.trade_name, d.formula
```

```
FROM sell AS s
```

```
JOIN drug AS d ON s.pname = d.pname AND s.trade_name = d.trade_name
```

```
WHERE s.pharmacy_name = 'Walmart';
```

```
mysql> SELECT d.trade_name, d.formula
-> FROM sell AS s
-> JOIN drug AS d ON s.pname = d.pname AND s.trade_name = d.trade_name
-> WHERE s.pharmacy_name = 'Walmart';
```

trade_name	formula
that	Some_formula
Ibuprofen	A_formula
these	This_formula

```
3 rows in set (0.00 sec)
```

5) Retrieve number of type of drugs made by "Pfizer". (Type is distinguished by "trade\_name").

```
SELECT COUNT(pname)
```

```
FROM drug
```

```
WHERE pname = 'Pfizer';
```

```
mysql> SELECT COUNT(pname)
-> FROM drug
-> WHERE pname = 'Pfizer';
```

COUNT(pname)
3

```
1 row in set (0.00 sec)
```

6) Obtain information (pharmacy name, address) of pharmacy that sells "Ibuprofen" with the highest price among all pharmacies. ("Ibuprofen" is a trade name)

```

SELECT pcy_name, address
FROM sell AS s
JOIN pharmacy AS p ON s.pharmacy_name = p.pcy_name
WHERE pcy_name = pharmacy_name AND trade_name = 'Ibuprofen' AND s.price = (
    SELECT MAX(price)
    FROM sell
    WHERE trade_name = 'Ibuprofen'
);

```

```

mysql> SELECT pcy_name, address
-> FROM sell AS s
-> JOIN pharmacy AS p ON s.pharmacy_name = p.pcy_name
-> WHERE pcy_name = pharmacy_name AND trade_name = 'Ibuprofen' AND s.price = (
->     SELECT MAX(price)
->     FROM sell
->     WHERE trade_name = 'Ibuprofen'
-> );
+-----+-----+
| pcy_name | address      |
+-----+-----+
| Walmart | another_street |
+-----+-----+
1 row in set (0.00 sec)

```

7) Retrieve the pharmacies that sell more than 2 types of drugs. List pharmacy name and number of types of drugs sold. (Type is distinguished by “trade\_name”. However, if two drugs with the same trade name are produced by two different pharmaceutical companies, they are considered as two different types of drugs.)

```

SELECT pharmacy_name, COUNT(trade_name)
FROM sell
GROUP BY pharmacy_name
HAVING COUNT(trade_name) > 2;

```

```

mysql> SELECT pharmacy_name, COUNT(trade_name)
-> FROM sell
-> GROUP BY pharmacy_name
-> HAVING COUNT(trade_name) > 2;
+-----+-----+
| pharmacy_name | COUNT(trade_name) |
+-----+-----+
| Pharm        | 3 |
| Walmart      | 3 |
+-----+-----+
2 rows in set (0.00 sec)

```