1.

```
CREATE TABLE user (
    id INT PRIMARY KEY AUTO_INCREMENT,
    name VARCHAR(50),
    sex VARCHAR(10),
    age INT,
    phone VARCHAR(15)
);

INSERT INTO user (name, sex, age, phone) VALUES
('John Doe', 'Male', 25, '123-456-7890'),
('Jane Smith', 'Female', 31, '987-654-3210'),
('Bob Johnson', 'Male', 22, '555-123-4567');
```

id	name	sex	age	phone
1	John Doe	Male	25	123-456-7890
2	Jane Smith	Female	31	987-654-3210
3	Bob Johnson	Male	22	555-123-4567
NULL	NULL	NULL	NULL	NULL

2.

```
SELECT * FROM user WHERE age BETWEEN 20 AND 30;
```

id	name	sex	age	phone
1	John Doe	Male	25	123-456-7890
3	Bob Johnson	Male	22	555-123-4567
NULL	NULL	NULL	NULL	NULL

3.

```
INSERT INTO user (name, sex, age, phone) VALUES
('Zhou Yong jia', 'Male', 19, '188-3556-3679'),
('Zhou Feng', 'Female', 24, '122-3344-5566'),
('Zhou Yu', 'Male', 29, '987-6544-3211');
```

id	name	sex	age	phone
1	John Doe	Male	25	123-456-7890
2	Jane Smith	Female	31	987-654-3210
3	Bob Johnson	Male	22	555-123-4567
4	Zhou Yong jia	Male	19	188-3556-3679
5	Zhou Feng	Female	24	122-3344-5566
6	Zhou Yu	Male	29	987-6544-3211
NULL	NULL	NULL	NULL	NULL

4.

```
SELECT * FROM user
WHERE age BETWEEN 20 AND 30
AND name LIKE 'Zhou%'
ORDER BY age DESC;
```

.

id	name	sex	age	phone
6	Zhou Yu	Male	29	987-6544-3211
5	Zhou Feng	Female	24	122-3344-5566
NULL	NULL	NULL	NULL	NULL

5.

```
SELECT AVG(age) AS average_age FROM user;
```

average_age
25.0000

6.

```sql
CREATE TABLE team (
    id INT PRIMARY KEY AUTO_INCREMENT,
    teamName VARCHAR(50)
);

CREATE TABLE score (
    id INT PRIMARY KEY AUTO_INCREMENT,
    teamid INT,
    userid INT,
    score INT,
    FOREIGN KEY (teamid) REFERENCES team(id),
    FOREIGN KEY (userid) REFERENCES user(id)
);
```

7.
```sql
INSERT INTO team (teamName) VALUES ('ECNU'),('NJU');

INSERT INTO score (teamid, userid, score) VALUES
(1, 1, 85),
(2, 2, 90),
(2, 3, 66),
(1, 4, 70),
(1, 5, 88),
(1, 6, 99);

SELECT u.* FROM user u
JOIN score s ON u.id = s.userid
JOIN team t ON s.teamid = t.id
WHERE t.teamName = 'ECNU' AND u.age < 20;
```

id	name	sex	age	phone
▶ 4	Zhou Yong jia	Male	19	188-3556-3679

8.

```sql
SELECT t.teamName,
       COALESCE(SUM(CASE WHEN s.score IS NULL THEN 0 ELSE s.score END), 0) AS total_score
FROM score s
JOIN team t ON s.teamid = t.id
WHERE t.teamName = 'ECNU';
```

teamName	total_score
▶ ECNU	342

9.

```sql
DELETE FROM user WHERE name = 'Zhou Yong jia';
```

id	name	sex	age	phone
1	John Doe	Male	25	123-456-7890
2	Jane Smith	Female	31	987-654-3210
3	Bob Johnson	Male	22	555-123-4567
5	Zhou Feng	Female	24	122-3344-5566
6	Zhou Yu	Male	29	987-6544-3211