

## 第一题

```
mysql> USE hw5;
Database changed
mysql> CREATE TABLE user(
  -> id INT AUTO_INCREMENT PRIMARY KEY,
  -> name VARCHAR(255),
  -> sex VARCHAR(10),
  -> age INT,
  -> phone VARCHAR(20)
  -> );
Query OK, 0 rows affected (0.06 sec)

mysql> 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');
Query OK, 3 rows affected (0.02 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT *FROM user;
+-----+-----+-----+-----+-----+
| 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 |
+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)
```

## 第二题

```
mysql> SELECT * FROM user
  -> WHERE age >= 20 AND age <= 30;
+-----+-----+-----+-----+-----+
| id | name       | sex  | age | phone       |
+-----+-----+-----+-----+-----+
| 1  | John Doe   | Male | 25  | 123-456-7890 |
| 3  | Bob Johnson | Male | 22  | 555-123-4567 |
+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

## 第三题

```
mysql> INSERT INTO user(name,sex,age,phone)
  -> VALUES
  -> ('Chenyu Li','Female',19,'191-2122-8658'),
  -> ('Yu Li','Male',19,'121-5647-9234'),
  -> ('Chen Li','Female',20,'131-4537-8726');
Query OK, 3 rows affected (0.01 sec)
Records: 3 Duplicates: 0 Warnings: 0

mysql> SELECT *FROM user;
+-----+-----+-----+-----+-----+
| 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  | Chenyu Li  | Female | 19  | 191-2122-8658 |
| 5  | Yu Li      | Male | 19  | 121-5647-9234 |
| 6  | Chen Li    | Female | 20  | 131-4537-8726 |
+-----+-----+-----+-----+-----+
6 rows in set (0.00 sec)
```

## 第四题

```
mysql> SELECT *
-> FROM user
-> WHERE age BETWEEN 20 AND 30 AND name LIKE '%Li%'
-> ORDER BY age DESC;
+-----+-----+-----+-----+-----+
| id | name   | sex   | age | phone          |
+-----+-----+-----+-----+-----+
| 6  | Chen Li | Female | 20  | 131-4537-8726 |
+-----+-----+-----+-----+-----+
1 row in set (0.01 sec)
```

## 第五题

```
mysql> SELECT AVG(age) AS average_age
-> FROM user;
+-----+
| average_age |
+-----+
|      22.6667 |
+-----+
1 row in set (0.01 sec)
```

## 第六题

```
mysql> CREATE TABLE team(
-> id INT KEY AUTO_INCREMENT,
-> teamName VARCHAR(255) NOT NULL
-> );
Query OK, 0 rows affected (0.05 sec)

mysql> 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)
-> );
Query OK, 0 rows affected (0.05 sec)
```

## 第七题

```
mysql> INSERT INTO team(teamName)
-> VALUES
-> ('ECNU'),
-> ('SJTU'),
-> ('FDU'),
-> ('TJU');
Query OK, 4 rows affected (0.01 sec)
Records: 4 Duplicates: 0 Warnings: 0
```

```
mysql> INSERT INTO score (teamid, userid, score)
-> VALUES
-> (2,1,90),
-> (1,2,60),
-> (3,3,99),
-> (1,4,95),
-> (1,5,56),
-> (4,6,23);
Query OK, 6 rows affected (0.01 sec)
Records: 6 Duplicates: 0 Warnings: 0
```

```
mysql> 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 | Chenyu Li | Female | 19   | 191-2122-8658 |
| 5 | Yu Li     | Male  | 19   | 121-5647-9234 |
+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)
```

## 第八题

```
mysql> SELECT COALESCE(SUM(s.score), 0) AS total_score
-> FROM team t
-> JOIN score s ON t.id = s.teamid
-> WHERE t.teamName = 'ECNU';
+-----+
| total_score |
+-----+
|          211 |
+-----+
1 row in set (0.00 sec)
```

## 第九题

```
mysql> SELECT * FROM score WHERE userid=(SELECT id FROM user WHERE name='Chenyu Li');
+-----+-----+-----+-----+
| id | teamid | userid | score |
+-----+-----+-----+-----+
| 10 |      1 |      4 |    95 |
+-----+-----+-----+-----+
1 row in set (0.01 sec)

mysql> DELETE FROM score WHERE userid=(SELECT id FROM user WHERE name='Chenyu Li');
Query OK, 1 row affected (0.01 sec)

mysql> DELETE FROM user WHERE name='Chenyu Li';
Query OK, 1 row affected (0.01 sec)

mysql> SELECT *FROM user;
+-----+-----+-----+-----+-----+
| 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 | Yu Li     | Male  | 19   | 121-5647-9234 |
| 6 | Chen Li   | Female | 20   | 131-4537-8726 |
+-----+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```