Homework 5

1.

```sql
CREATE TABLE user (
    user_id INT AUTO_INCREMENT PRIMARY KEY,
    user_name VARCHAR(50),
    user_sex VARCHAR(50),
    user_age INT,
    user_phone VARCHAR(50)
);
INSERT INTO user VALUES
(1,'John Doe','Male',25,'123-456-7890'),
(2,'Jane Smith','Female',31,'987-654-3210'),
(3,'Bob Johnson','Male',22,'555-123-4567');
```

local: 3 records on 'user' table

user_id	user_name	user_sex	user_age	user_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

2.

```sql
SELECT *
FROM user
WHERE user_age BETWEEN 20 AND 30
```

备注：这里应该添加分号，但是 vscode 中可以运行成功，因为只有一条 sql 语句

user_id int(11)	user_name varchar(50)	user_sex varchar(50)	user_age int(11)	user_phone varchar(50)
1	John Doe	Male	25	123-456-
3	Bob Johns	Male	22	555-123-

3.

```
▷ Run | New Tab | 🔒 Active Connection | ▷ Run on active connection | ≡ Select block
1  INSERT INTO user VALUES
2  (4,'Louyihong','Male',19,'150-000-00000'),
3  (5,'Louyilan','Male',20,'987-654-3210'),
4  (6,'Louyihuang','Male',21,'555-123-4567'); AffectedRows: 3 38ms
```

user		local: 6 records on 'user' table ✕		
user_id	user_name	user_sex	user_age	user_phone
abc Filter...	abc Filter...	abc Filter...	abc Filter...	abc Filter...
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	Louyihong	Male	19	150-000-00000
5	Louyilan	Male	20	987-654-3210
6	Louyihuang	Male	21	555-123-4567

4.

```
▷ Run | New Tab | JSON | Copy | 🔒 Active Connection | ▷ Run on a
1  SELECT *
2  FROM user
3  WHERE  user_age
4  BETWEEN 20 AND 30
5  AND  user_name LIKE 'Lou%'
6  ORDER BY user_age DESC; 11ms
```

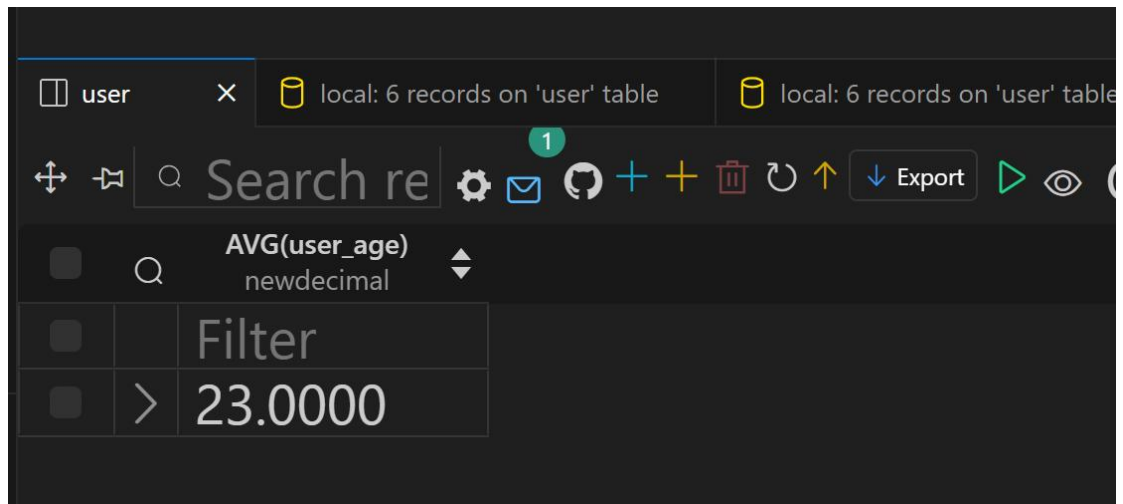| user ✕	local: 6 records on 'user' table			
⊕ ⊡ 🔍 Search re ⚙ ✉ ⵔ + + 🗑 ↻ ↑ ↓ Export ▷ ⊙ Cost: 20ms ‹ 1 › Total 2				
* user_id int(11)	user_name varchar(50)	user_sex varchar(50)	user_age int(11)	user_phone varchar(50)
Filter	Filter	Filter	Filter	Filter
› 6	Louyihua	Male	21	555-123-4
› 5	Louyilan	Male	20	987-654-3

5.

```
▷ Run | New Tab | JSON | 🔒 Active Con
1  SELECT AVG(user_age)
2  FROM user; 42ms
```

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AVG(user_age) newdecimal
Filter
> 23.0000

6.

```
1  CREATE TABLE team (
2      team_id INT AUTO_INCREMENT PRIMARY KEY,
3      team_name VARCHAR(50)
4  );
   ▷ Run | New Tab | Copy
5  CREATE TABLE score (
6      score_id INT AUTO_INCREMENT PRIMARY KEY,
7      score_teamid INT,
8      FOREIGN KEY (score_teamid)
9      REFERENCES team (team_id)
10     ON DELETE CASCADE ON UPDATE CASCADE,
11     score_userid INT,
12     FOREIGN KEY (score_userid)
13     REFERENCES user (user_id)
14     ON DELETE CASCADE ON UPDATE CASCADE,
15     score_score INT
16 );
17 --外键必须指向主键
```

备注：这里可以看到表创建了，只不过为空

7.

```
▷ Run | New Tab | 🔒 Active Connection | ▷ Run on active connection
1  INSERT INTO team VALUES
2  (1,'ECNU'),(2,'TU'),
3  (3,'FU'),(4,'SJTU'),
4  (5,'ECNU'),(6,'ECNU');
   ▷ Run | New Tab
5  INSERT INTO score VALUES
6  (1,1,1,100),(2,2,2,90),
7  (3,3,3,80),(4,4,4,85),
8  (5,5,5,95),(6,6,6,100);
```

score_id	score_teamid	score_userid	score_score
abc Filter...	abc Filter...	abc Filter...	abc Filter...
1	1	1	100
2	2	2	90
3	3	3	80
4	4	4	85
5	5	5	95
6	6	6	100

team_id	team_name
abc Filter...	abc Filter...
1	ECNU
2	TU
3	FU
4	SJTU
5	ECNU
6	ECNU

备注：team 里给定了，则 score 里只能插入与 team 有关的

```sql
 9  SELECT user.user_id,user.user_name,user.user_sex,
10  user.user_age,user.user_phone FROM score
11  JOIN user ON user.user_age <= 20
12  AND score.score_userid = user.user_id
13  JOIN team ON team.team_name = 'ECNU'
14  AND score.score_teamid = team.team_id 9ms
```

user_id int	user_name varchar	user_sex varchar	user_age int	user_phone varchar
Filter	Filter	Filter	Filter	Filter
5	Louyilan	Male	20	987-654-3

8.

```sql
1  SELECT SUM(IFNULL(score.score_score,0)) FROM score
2  JOIN team ON team.team_name="ECNU"
3  AND score.score_teamid=team.team_id; 8ms
```

Cost: 8ms ‹ 1 › Total 1

SUM(IFNULL(score.score newdecimal
Filter
295

9.

```sql
1  DELETE FROM user WHERE user_name="Louyihong"; 26ms Aff
```

user_id	user_name	user_sex	user_age	user_phone
Filter...	Filter...	Filter...	Filter...	Filter...
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	Louyilan	Male	20	987-654-3210
6	Louyihuang	Male	21	555-123-4567