

homework5

```
5-1
CREATE DATABASE my_edu_database;

USE my_edu_database;
CREATE TABLE user (
    id INT UNSIGNED NOT NULL auto_increment PRIMARY KEY,
    name VARCHAR (50) NOT NULL,
    sex VARCHAR (10) NOT NULL,
    age INT NOT NULL,
    phone VARCHAR (20) NOT NULL
);
INSERT INTO user VALUES(NULL,'John Doe', 'Male', 25, '123-456-7890');
INSERT INTO user VALUES(NULL,'Jane Smith', 'Female', 31, '987-654-3210');
INSERT INTO user VALUES(NULL,'Bob Johnson', 'Male', 22, '555-123-4567');
```

Output:

```
mysql> create database my_edu_database;
Query OK, 1 row affected (0.01 sec)
```

		* id int unsigned	* name varchar(50)	* sex varchar(10)	* age int	* phone varchar(20)
		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

=====

```
5-2
SELECT name FROM user WHERE age >= 20 AND age <= 30;
```

Output:

<input type="checkbox"/>	Q	* name varchar(50)
<input type="checkbox"/>		Filter
<input type="checkbox"/>	>	John Doe
<input type="checkbox"/>	>	Bob Johnson

=====

5-3

```
INSERT INTO user VALUES(null,"Zhicheng Xu","Male",20,"200-790-6677");
INSERT INTO user VALUES(NULL, 'Emily Xu', 'Female', 19, '234-567-8901');
INSERT INTO user VALUES(NULL, 'Michael Xu', 'Male', 17, '345-678-9012');
INSERT INTO user VALUES(NULL, 'Sophia Xu', 'Female', 22, '456-789-0123');
INSERT INTO user VALUES(NULL, 'Daniel Xu', 'Male', 35, '567-890-1234');
```

Output:

<input type="checkbox"/>	Q	* id int unsigned	* name varchar(50)	* sex varchar(10)	* age int	* phone varchar(20)
<input type="checkbox"/>		Filter	Filter	Filter	Filter	Filter
<input type="checkbox"/>	>	1	John Doe	Male	25	123-456-7890
<input type="checkbox"/>	>	2	Jane Smith	Female	31	987-654-3210
<input type="checkbox"/>	>	3	Bob Johnson	Male	22	555-123-4567
<input type="checkbox"/>	>	4	Zhicheng Xu	Male	20	200-790-6677
<input type="checkbox"/>	>	5	Emily Xu	Female	19	234-567-8901
<input type="checkbox"/>	>	6	Michael Xu	Male	17	345-678-9012
<input type="checkbox"/>	>	7	Sophia Xu	Female	22	456-789-0123
<input type="checkbox"/>	>	8	Daniel Xu	Male	35	567-890-1234

=====

5-4

```
SELECT name
FROM user
where age >= 20 and age <= 30 and name LIKE "%Xu"
ORDER BY age DESC;
```

Output:

		* name varchar(50)
		Filter
	>	Sophia Xu
	>	Zhicheng Xu

=====

5-5

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

Output:

<input type="checkbox"/>	<input type="checkbox"/>	average_age newdecimal	<input type="checkbox"/>
<input type="checkbox"/>		Filter	
<input type="checkbox"/>	>	23.8750	

=====

5-6

```
CREATE TABLE team(  
id INT UNSIGNED NOT NULL auto_increment PRIMARY KEY,  
teamName VARCHAR(20) NOT NULL  
);  
  
CREATE TABLE score(  
id INT UNSIGNED NOT NULL auto_increment PRIMARY KEY,  
teamid INT UNSIGNED NOT NULL,  
userid INT UNSIGNED NOT NULL,  
score INT NOT NULL,  
FOREIGN KEY (teamid) REFERENCES team (id)ON UPDATE CASCADE ON DELETE CASCADE,
```

```
FOREIGN KEY (userid) REFERENCES user (id)ON DELETE CASCADE ON UPDATE CASCADE
);
```

Output:

team:

* id	* teamName
int unsigned	varchar(20)

score:

* id	* teamid	* userid	score
int unsigned	int unsigned	int unsigned	int

=====

5-7

```
INSERT INTO team VALUES(NULL,"FDU");
INSERT INTO team VALUES(NULL,"MIT");
INSERT INTO team VALUES(NULL,"STJU");
INSERT INTO team VALUES(NULL,"ECNU");

INSERT INTO score values(NULL,2,7,88);
INSERT INTO score values(NULL,4,4,91);
INSERT INTO score values(NULL,1,1,81);
INSERT INTO score values(NULL,4,5,NULL);
INSERT INTO score values(NULL,1,8,97);
INSERT INTO score values(NULL,4,6,83);
INSERT INTO score values(NULL,3,2,96);
INSERT INTO score values(NULL,3,3,87);
```

```

SELECT user.name
FROM user
JOIN score ON user.id = score.userid
JOIN team ON score.teamid = team.id
WHERE team.teamName = 'ECNU' AND user.age < 20;

```

Output:

		* id int unsigned	* teamid int unsigned	* userid int unsigned	score int
		Filter	Filter	Filter	Filter
	>	1	2	7	88
	>	2	4	4	91
	>	3	1	1	81
	>	4	4	5	(NULL)
	>	5	1	8	97
	>	6	4	6	83
	>	7	3	2	96
	>	8	3	3	87

	name varchar
	Filter
>	Emily Xu
>	Michael Xu

=====

```

5-8
SELECT SUM(score.score) AS sum_of_ECNU
FROM score
JOIN team ON score.teamid = team.id
WHERE team.teamName = 'ECNU';

```

Output:

Q	sum_of_ECNU newdecimal
	Filter
>	174

=====

5-9

```
DELETE FROM user
WHERE user.name = 'Zhicheng Xu';
```

Output:

	Q	* id int unsigned	* name varchar(50)	* sex varchar(10)	* age int	* phone varchar(20)
		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	Emily Xu	Female	19	234-567-8901
	>	6	Michael Xu	Male	17	345-678-9012
	>	7	Sophia Xu	Female	22	456-789-0123
	>	8	Daniel Xu	Male	35	567-890-1234