**数据库名称：**

building\_risk\_detection\_system\_db

1. **表user\_tb：**

CREATE TABLE user\_tb

(

uid CHAR(16) NOT NULL PRIMARY KEY,

pwd CHAR(16) NOT NULL

);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名称** | **数据类型** | **是否空值** | **约束** | **备注** |
| uid | Char(16) | 否 | 主键 | 用户账号 |
| pwd | Char(16) | 否 |  | 用户密码 |

|  |  |
| --- | --- |
| **用户账号(uid)** | 用户密码(pwd) |
| 541807010119 | lgc2621690255 |

1. **表device\_tb：**

CREATE TABLE device\_tb

(

device\_id CHAR(16) NOT NULL PRIMARY KEY,

device\_name CHAR(32) NOT NULL,

device\_type CHAR(16) NOT NULL,

url CHAR(64) NOT NULL,

api\_key CHAR(32) NOT NULL

);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名称** | **数据类型** | **是否空值** | **约束** | **备注** |
| device\_id | Char(16) | 否 | 主键 | 设备号 |
| device\_name | Char(32) | 否 |  | 设备名称 |
| device\_type | Char(16) | 否 |  | 设备种类 |
| url | Char(64) | 否 |  | API地址 |
| api\_key | Char(32) | 否 |  | APIKey |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **设备号(device\_id)** | 设备名称(device\_name) | 设备种类(device\_type) | API地址(url) | APIKey(api\_key) |
| 804632405 | 默认传感器 | 温度 | http://api.heclouds.com/devices/804632405 | U7UU2Hp4ns2V2Ug55BgrHGinQYA= |

1. **表record\_tb：**

CREATE TABLE record\_tb

(

device\_id CHAR(16) NOT NULL,

device\_type CHAR(16) NOT NULL,

value CHAR(16) NOT NULL,

at DATETIME NOT NULL,

PRIMARY KEY( device\_id, device\_type, at),

FOREIGN KEY(device\_id) REFERENCES device\_tb(device\_id)

);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名称** | **数据类型** | **是否空值** | **约束** | **备注** |
| device\_id | Char(16) | 否 | 主键，device\_tb外键 | 设备号 |
| device\_type | Char(16) | 否 | 主键 | 设备种类 |
| value | Char(16) | 否 |  | 监测值 |
| at | Datetime | 否 | 主键 | 监测时间 |

|  |  |  |  |
| --- | --- | --- | --- |
| **设备号(device\_id)** | **设备种类(device\_type)** | 监测值(value) | **监测时间(at)** |
| 804632405 | 温度 | 28.000000 | 2021-11-06 09:35:51 |

1. **表user\_device\_tb：**

CREATE TABLE user\_device\_tb

(

uid CHAR(16) NOT NULL,

device\_id CHAR(16) NOT NULL,

device\_type CHAR(16) NOT NULL,

device\_name CHAR(32) NOT NULL,

PRIMARY KEY( uid, device\_id,device\_type),

FOREIGN KEY(uid) REFERENCES user\_tb(uid),

FOREIGN KEY(device\_id) REFERENCES device\_tb(device\_id)

);

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **字段名称** | **数据类型** | **是否空值** | **约束** | **备注** |
| uid | Char(16) | 否 | 主键，user\_tb外键 | 用户账号 |
| device\_id | Char(16) | 否 | 主键，device\_tb外键 | 设备号 |
| device\_type | Char(16) | 否 | 主键 | 设备种类 |
| device\_name | Char(32) | 否 |  | 设备名称 |

|  |  |  |  |
| --- | --- | --- | --- |
| **用户账号(uid)** | **设备号(device\_id)** | **设备种类(device\_type)** | 设备名称(device\_name) |
| 541807010119 | 804632405 | 温度 | 温度传感器 |

**关系图：**

**record\_tb**

device\_id

value

at

device\_type

**user\_device\_tb**

uid

device\_type

device\_name

device\_id

**user\_tb**

uid

pwd

**device\_tb**

device\_id

device\_name

device\_type

url

api\_key