

# 物联网应用网站前后端接口说明

## 1. 用户模块

### 1.1 用户登录

- url: `http://localhost:8000/login/`
- method: `post`
- front data

```
{
  "email": "lemingshen@zju.edu.cn",
  "password": "123456",
  "remember": true
}
```

- back data

```
{
  "code": 1,
  "message": "login succeed",
  "token": "2f7108ac307fd06f5995948f35a70f2f"
}
```

code	说明
0	用户名不存在
1	登录成功
2	密码错误
3	其他错误

### 1.2 用户注册

- url: `http://localhost:8000/register/`
- mehtod: `post`
- front data

```
{
  "email": "lemingshen@zju.edu.cn",
  "password": "123456",
  "user_name": "ZJU_SLM",
  "auth_code": "123456"
}
```

- back data

```
{
  "code": 1,
  "message": "注册成功",
  "token": "2f7108ac307fd06f5995948f35a70f2f"
}
```

code	说明
0	验证码错误
1	注册成功
2	注册失败

### 1.3 用户忘记密码

- url: `http://localhost:8000/forget/`
- method: `post`
- front data

```
{
  "email": "lemingshen@zju.edu.cn",
  "auth_code": "256984",
  "password": "123456"
}
```

- back data

```
{
  "code": 1,
  "message": "update succeed"
}
```

code	说明
0	验证码错误
1	修改成功
2	修改失败

### 1.4 发送验证码

- url: `http://localhost:8000/sendemail/`
- method: `post`
- front data

```
{
  "email": "lemingshen@zju.edu.cn",
  "type": 1 /* 1 代表注册所需, 0代表验证邮件正确性 */
}
```

- back data

```
{
  "code": 1,
  "message": "send email succeed"
}
```

code	说明
0	发送失败
1	发送成功
2	用户不存在或已经存在

## 1.5 获取用户基本信息

- url: `http://localhost:8000/user/get_user_information/`
- method: `get`
- front data

```
{
  "email": "lemingshen@zju.edu.cn"
}
```

- back data

```
{
  "code": 1,
  "user_name": "ZJU_SLM",
  "name": "沈乐明",
  "gender": "男",
  "phone": "15381145750",
  "address": "浙江省 杭州市",
  "work": "浙江大学 网络空间安全学院",
  "description": "# test"
}
```

code	说明
0	获取失败
1	获取成功

## 1.6 上传头像

- url: `http://localhost:8000/user/upload/lemingshen@zju.edu.cn/`
- method: `post`
- front data

```
{
  file stream
}
```

- back data

```
{
  "code": 1,
  "message": "上传成功"
}
```

code	说明
0	上传失败
1	上传成功

## 1.7 修改用户信息

- url: `http://localhost:8000/user/settings/`
- method: `post`
- front data

```
{
  "email": "lemingshen@zju.edu.cn",
  "user_name": "ZJU_SLM",
  "name": "沈乐明",
  "gender": 1,
  "phone": "15381145750",
  "address": "浙江省 杭州市",
  "work_school": "浙江大学 网络空间安全学院",
  "description": "Software Engineering, College of Computer Science and Technology, Zhejiang University"
}
```

- back data

```
{
  "code": 1,
  "message": "修改成功",
}
```

code	说明
0	修改失败
1	修改成功

## 1.8 修改密码

- url: `http://localhost:8000/user/update_password`
- method: `post`
- front data

```
{
  "type": 0, /* 0 代表通过输入旧密码修改, 1 代表通过验证邮箱修改 */
  "email": "lemingshen@zju.edu.cn",
  "old_password": "123456",
  "new_password": "123",
  "auth_code": "123456"
}
```

- back data

```
{
  "code": 1,
  "message": "修改成功"
}
```

code	说明
0	验证码错误
1	修改成功
2	旧密码错误
3	修改失败

## 1.9 修改绑定手机号

- url: `http://localhost:8000/modify_email/`
- method: `post`
- front data

```
{
  "old_phone": "15381145750",
  "new_phone": "123456",
  "email": "lemingshen@zju.edu.cn"
}
```

- back data

```
{
  "code": 1,
  "message": "修改成功"
}
```

code	说明
0	旧手机号错误
1	修改成功
2	修改失败

## 2. 设备管理与配置模块

### 2.1 获取用户设备种类及数量

- url: `http://localhost:8000/user/index/`
- method: `get`
- front data

```
{
  "email": "lemingshen@zju.edu.cn"
}
```

- back data

```
{
  "code": 1,
  "message": "succeed",
  "device_list": [{
    "device_id": "device0001",
    "device_class": 1,
    "device_type": "1-1",
    "create_time": "2021-05-05 16:32:15",
    "device_name": "test"
  }, {}, ..., {}]
}
```

code	说明
0	获取失败
1	获取成功

### 2.2 查询设备是否存在

- url: `http://localhost:8000/device/search/`
- method: `post`
- front data

```
{
  "device_id": "device0101"
}
```

- back data

```
{
  "code": 1,
  "message": "exists",
  "device_class": 4,
  "device_type": "4-4",
  "create_time": "2021-05-05 16:32:15"
}
```

code	说明
0	设备不存在
1	设备存在
2	设备已经被占用
3	查询失败

## 2.3 添加设备

- url: `http://localhost:8000/device/`
- method: `post`
- front data

```
{
  "email": "lemingshen@zju.edu.cn",
  "device_id": "device0101",
  "device_name": "沈乐明的北斗导航卫星"
}
```

- back data

```
{
  "code": 1,
  "message": "success"
}
```

code	说明
0	添加失败
1	添加成功
2	设备已经被占用

## 2.4 移除设备

- url: `http://localhost:8000/device/delete/`
- method: `post`
- front data

```
{
  "email": "lemingshen@zju.edu.cn",
  "password": "123456",
  "device_id": "device0001"
}
```

- back data

```
{
  "code": 1,
  "message": "remove succeed"
}
```

code	说明
0	移除失败
1	移除成功
2	身份认证失败

## 2.5 获取某设备基本信息

- url: `http://localhost:8000/device/<device_id>/index/`
- method: `get`
- front data

```
{
  "device_id": "device0001"
}
```

- back data

```
{
  "code": 1,
  "message": "acquire succeed",
  "device_class": 1,
  "device_type": "1-1",
  "create_time": "2021-05-05 16:32:15",
  "device_name": "slm's device",
  "device_description": "# slm's device",
  "average_value": 100,
  "accumulated_message_size": "100 KB"
}
```



code	说明
0	设备不存在
1	查询成功
2	其他错误

## 2.6 修改设备基本信息

- url: `http://localhost:8000/device/<device_id>/index/`
- method: `post`
- front data

```
{
  "device_id": "device0001",
  "device_name": "沈乐明的ECS主机",
  "device_description": "# 于2021年5月1日购买"
}
```

- back data

```
{
  "code": 1,
  "message": "succeed"
}
```

code	说明
0	修改失败
1	修改成功

## 2.7 获取某设备累计数据信息列表

- url: `http://localhost:8000/device/<device_id>/value/`
- method: `get`
- front data

```
{}
```

- back data

```
{
  "code": 1,
  "message": "get value succeed",
  "value_list": [1, 2, 3, 4, 5, 6, 7, 8, 9] /* stands for 0~10, 10~20,
  20~30, 30~40, 40~50, 50~60, 60~70, 70~80, 80~100 */
}
```

code	说明
0	获取失败
1	获取成功

## 2.8 获取设备历史位置信息列表

- url: `http://localhost:8000/device/<device_id>/history/`
- method: `get`
- front data

```
{
  "device_id": "device0001"
}
```

- back data

```
{
  "code": 1,
  "message": "get device history succeed",
  "history_trajectory_marker_list": [{
    "text": "2021-05-11 09:32:27",
    "location": "120.315,30.2989"
  }, {}, ..., {}],
  "history_trajectory_path_list": [{
    "lng": 120.315,
    "lat": 30.2989
  }, {}, ..., {}]
}
```

code	说明
0	获取失败
1	获取成功

## 3. 设备数据可视化模块

### 3.1 获取个人所有设备id列表

- url: `http://localhost:8000/statistics/map/`
- method: `get`
- front data

```
{
  "email": "lemingshen@zju.edu.cn"
}
```

- back data

```
{
  "code": 1,
  "message": "get list succeed",
  "list": ["device0001", "device0002", ..., "device0101"]
}
```

code	说明
0	获取失败
1	获取成功

## 3.2 获取网站统计信息

- url: `http://localhost:8000/statistics/index/`
- method: `get`
- front data

```
{
  "email": "lemingshen@zju.edu.cn"
}
```

- back data

```
{
  "code": 1,
  "message": "get information succeed",
  "user_number": 2,
  "device_number": 500,
  "user_device_number": 101,
  "total_message_size": "100 KB"
}
```

code	说明
0	获取信息失败
1	获取信息成功

## 4. 帮助模块

### 4.1 用户进行反馈

- url: `http://localhost:8000/help/`
- method: `post`
- front data

```
{
  "subject": "xxxxxx",
  "content": "xxxxxxxxxxxxxx"
}
```

- back data

```
{
  "code": 1,
  "message": "反馈成功"
}
```

code	说明
0	反馈失败
1	反馈成功