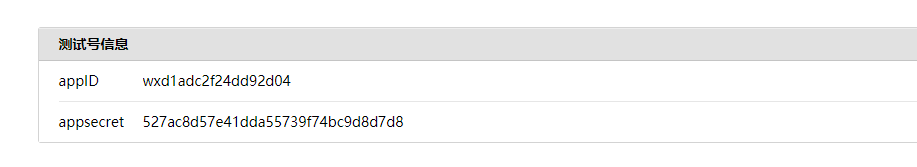
# 1微信公众号开发

调用微信的公众号接口.



注册公众测试账号

<http://mp.weixin.qq.com/debug/cgi-bin/sandboxinfo?action=showinfo&t=sandbox/index>

添加公众号用户(扫描公众号二维码)

创建公众号消息模板

**获得access\_token**

https请求方式: GET <https://api.weixin.qq.com/cgi-bin/token?grant_type=client_credential&appid=APPID&secret=APPSECRET>



**获得公众号用户列表**

http请求方式: GET（请使用https协议）

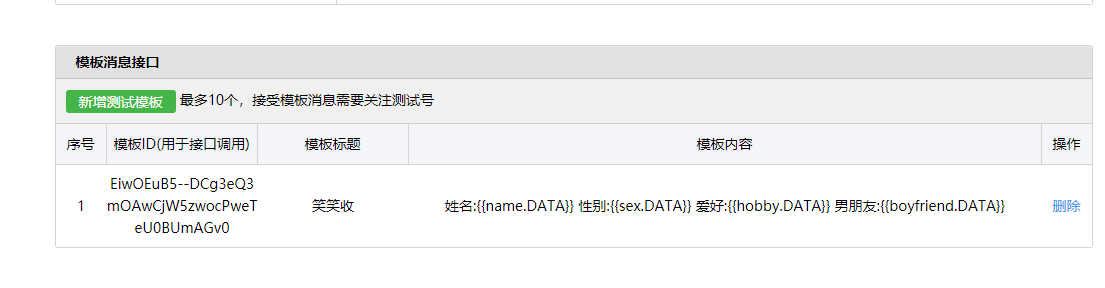
https://api.weixin.qq.com/cgi-bin/user/get?access\_token=ACCESS\_TOKEN&next\_openid=NEXT\_OPENID



**发送公众号模板消息**

http请求方式: POST

https://api.weixin.qq.com/cgi-bin/message/template/send?access\_token=ACCESS\_TOKEN



## 1.1添加公众号用户



## 1.2创建消息模板



## 1.4获得Token

### 1.4.1添加依赖

|  |
| --- |
|  |

### 1.4.2创建Token的实体类

|  |
| --- |
| **package** com.example.weixin.pojo;  */\*\*  \* 测试号信息实体类，用来获取access\_token  \*/* **public class** Token {  **private** String **appID**=**"wxd1adc2f24dd92d04"**;  **private** String **appsecret**=**"527ac8d57e41dda55739f74bc9d8d7d8"**;   **public** String getAppID() {  **return appID**;  }   **public void** setAppID(String appID) {  **this**.**appID** = appID;  }   **public** String getAppsecret() {  **return appsecret**;  }   **public void** setAppsecret(String appsecret) {  **this**.**appsecret** = appsecret;  }   **public static** Token instance(){  **return new** Token();  } } |

### 1.4.3创建TokenService接口

|  |
| --- |
| package com.example.weixin.service;  import com.example.weixin.pojo.Token;  import java.util.Map;  public interface TokenService {  /\*\*  \* 获取access\_token  \*/  public Map<String,Object> getAccessTokenService(Token token); } |

### 1.4.4创建TokenServiceImpl实现类

|  |
| --- |
| package com.example.weixin.service.impl;  import com.example.weixin.pojo.Token; import com.example.weixin.service.TokenService; import org.springframework.beans.factory.annotation.Autowired; import org.springframework.stereotype.Service; import org.springframework.web.client.RestTemplate;  import java.util.Map;  @Service public class TokenServiceImpl implements TokenService {  //注入RestTemplate对象  @Autowired  private RestTemplate restTemplate;   @Override  public Map<String, Object> getAccessTokenService(Token token) {  String url = "https://api.weixin.qq.com/cgi-bin/token" +  "?grant\_type=client\_credential&appid="+token.getAppID()+"&secret="+token.getAppsecret();  return restTemplate.getForObject(url,Map.class);  } } |

### 1.4.5创建Configs

|  |
| --- |
| package com.example.weixin.config;  import org.springframework.context.annotation.Bean; import org.springframework.context.annotation.Configuration; import org.springframework.web.client.RestTemplate;  /\*\*  \* 初始化restTemplate模板对象  \*/ @Configuration public class RestConfig {  @Bean  public RestTemplate restTemplate() {  return new RestTemplate();  } } |

### 1.4.6测试

|  |
| --- |
| package com.example.weixin;  import com.example.weixin.pojo.MsgTemp; import com.example.weixin.pojo.Token; import com.example.weixin.pojo.Users; import com.example.weixin.service.MsgService; import com.example.weixin.service.TokenService; import com.example.weixin.service.UserService; import org.junit.jupiter.api.Test; import org.springframework.beans.factory.annotation.Autowired; import org.springframework.boot.test.context.SpringBootTest;  import java.util.List; import java.util.Map;  @SpringBootTest class WeixinApplicationTests {   @Test  void contextLoads() {  }   //注入service对象  @Autowired  private TokenService tokenService;   @Test  public void getAccessToken(){  Map<String, Object> map = tokenService.getAccessTokenService(Token.instance());  //打印access\_token后面都会用到  System.out.println(map.get("access\_token"));  //有效时间（默认2小时）  System.out.println(map.get("expires\_in"));   } } |

## 1.5获得公众号用户列表

### 1.5.1创建Users实体类

|  |
| --- |
| **package** com.example.weixin.pojo;  **import** java.util.List; **import** java.util.Map;  */\*\*  \* 创建关注用户实体类  \*/* **public class** Users {  *//关注该公众账号的总用户数* **private** Long **total**;  *//拉取的OPENID个数，最大值为10000* **private** Long **count**;  *//列表数据，OPENID的列表* **private** Map<String, List<String>> **data**;  *//拉取列表的最后一个用户的OPENID(分页时有用)* **private** String **next\_openid**;   **public** Long getTotal() {  **return total**;  }   **public void** setTotal(Long total) {  **this**.**total** = total;  }   **public** Long getCount() {  **return count**;  }   **public void** setCount(Long count) {  **this**.**count** = count;  }   **public** Map<String, List<String>> getData() {  **return data**;  }   **public void** setData(Map<String, List<String>> data) {  **this**.**data** = data;  }   **public** String getNext\_openid() {  **return next\_openid**;  }   **public void** setNext\_openid(String next\_openid) {  **this**.**next\_openid** = next\_openid;  } } |

### 1.5.2UserService 接口添加方法

|  |
| --- |
| **package** com.example.weixin.service;  **import** com.example.weixin.pojo.Users;  **public interface** UserService {  */\*\*  \* 获取关注公众号的用户  \*/* **public** Users loadUsers(String access\_token); } |

### 1.5.3UserServiceImpl 实现方法

|  |
| --- |
| package com.example.weixin.service.impl;  import com.example.weixin.pojo.Users; import com.example.weixin.service.UserService; import org.springframework.beans.factory.annotation.Autowired; import org.springframework.stereotype.Service; import org.springframework.web.client.RestTemplate;  @Service public class UserServiceImpl implements UserService {  //注入RestTemplate对象  @Autowired  private RestTemplate restTemplate;   @Override  public Users loadUsers(String access\_token) {  String url = "https://api.weixin.qq.com/cgi-bin/user/get?access\_token="+access\_token;  return restTemplate.getForObject(url, Users.class);  } } |

### 1.5.4测试

|  |
| --- |
| package com.example.weixin;  import com.example.weixin.pojo.MsgTemp; import com.example.weixin.pojo.Token; import com.example.weixin.pojo.Users; import com.example.weixin.service.MsgService; import com.example.weixin.service.TokenService; import com.example.weixin.service.UserService; import org.junit.jupiter.api.Test; import org.springframework.beans.factory.annotation.Autowired; import org.springframework.boot.test.context.SpringBootTest;  import java.util.List; import java.util.Map;  @SpringBootTest class WeixinApplicationTests {   @Test  void contextLoads() {  }   //注入service对象  @Autowired  private TokenService tokenService;   @Autowired  private UserService userService;   @Test  public void getAccessToken(){  Map<String, Object> map = tokenService.getAccessTokenService(Token.instance());  //打印access\_token后面都会用到  System.out.println(map.get("access\_token"));  //有效时间（默认2小时）  System.out.println(map.get("expires\_in"));   Users users = userService.loadUsers((String) map.get("access\_token"));  //获取关注该公众号的用户  System.out.println(users.getData());   } } |

## 1.6发送模板消息

### 1.6.0 添加fastJson依赖

|  |
| --- |
| <**dependency**>  <**groupId**>com.alibaba</**groupId**>  <**artifactId**>fastjson</**artifactId**>  <**version**>1.2.47</**version**> </**dependency**> |

### 1.6.1创建MsgTemp实体类

|  |
| --- |
| package com.example.weixin.pojo;  import java.util.HashMap; import java.util.Map;  /\*\*  \* 封装需要发送的消息模板  \*/ public class MsgTemp {  //接收者openid  private String touser;  //模板ID  private String template\_id;  //模板跳转链接（海外帐号没有跳转能力）  private String url;  //模板数据  private Map<String,Map<String,String>> data;   public String getTouser() {  return touser;  }   public void setTouser(String touser) {  this.touser = touser;  }   public String getTemplate\_id() {  return template\_id;  }   public void setTemplate\_id(String template\_id) {  this.template\_id = template\_id;  }   public String getUrl() {  return url;  }   public void setUrl(String url) {  this.url = url;  }   public Map<String, Map<String, String>> getData() {  return data;  }   public void setData(Map<String, Map<String, String>> data) {  this.data = data;  }  /\*\*  \* 封装消息数据  \*/  public static Map<String,String> templateData(String value,String color){  Map<String,String> map = new HashMap<>();  //模板内容  map.put("value",value);  //模板内容字体颜色，不填默认为黑色  map.put("color",color);  return map;  } } |

### 1.6.2MsgService 接口添加方法

|  |
| --- |
| **package** com.example.weixin.service;  **import** com.example.weixin.pojo.MsgTemp; **import** com.example.weixin.pojo.Users;  **import** java.util.List;  **public interface** MsgService {  */\*\*  \* 发送模板消息  \*/* **public void** sendMsg(String access\_token, List<String> users); } |

### 1.6.3MsgServiceImpl 实现方法

|  |
| --- |
| package com.example.weixin.service.impl;  import com.alibaba.fastjson.JSON; import com.example.weixin.pojo.MsgTemp; import com.example.weixin.service.MsgService; import org.springframework.beans.factory.annotation.Autowired; import org.springframework.http.HttpEntity; import org.springframework.http.HttpHeaders; import org.springframework.http.MediaType; import org.springframework.stereotype.Service; import org.springframework.web.client.RestTemplate;  import java.util.HashMap; import java.util.List; import java.util.Map;  @Service public class MsgServiceImpl implements MsgService {  //注入RestTemplate对象  @Autowired  private RestTemplate restTemplate;   @Override  public void sendMsg(String access\_token, List<String> users) {  String url = "https://api.weixin.qq.com/cgi-bin/message/template/send?access\_token="+access\_token;    Map<String, String> name = MsgTemp.templateData("笑笑", "#173177");  Map<String, String> sex = MsgTemp.templateData("女", "#173177");  Map<String, String> hobby = MsgTemp.templateData("小杰", "#173177");  Map<String, String> boyfriend = MsgTemp.templateData("小杰", "#173177");   //给模板数据赋值  Map<String, Map<String,String>> map = new HashMap<>();  map.put("name",name);  map.put("sex",sex);  map.put("hobby",hobby);  map.put("boyfriend",boyfriend);    //给实体类赋值  MsgTemp msgTemp = new MsgTemp();  msgTemp.setTemplate\_id("EiwOEuB5--DCg3eQ3mOAwCjW5zwocPweTeU0BUmAGv0");  msgTemp.setUrl("www.baidu.com");  //将模板数据封装  msgTemp.setData(map);   //创建HttpHeaders对象，封装请求头信息  HttpHeaders headers=new HttpHeaders();  headers.setContentType(MediaType.APPLICATION\_JSON\_UTF8);   //遍历微信公众号用户集合  for (String openid : users){  msgTemp.setTouser(openid);  //将msg转换成json格式  String jsonString = JSON.toJSONString(msgTemp);  //封装请求体和请求头  HttpEntity<String> entity = new HttpEntity<String>(jsonString,headers);  String msg = restTemplate.postForObject(url, entity, String.class);  System.out.println(msg);  }   } } |

### 1.6.4测试

|  |
| --- |
| package com.example.weixin;  import com.example.weixin.pojo.MsgTemp; import com.example.weixin.pojo.Token; import com.example.weixin.pojo.Users; import com.example.weixin.service.MsgService; import com.example.weixin.service.TokenService; import com.example.weixin.service.UserService; import org.junit.jupiter.api.Test; import org.springframework.beans.factory.annotation.Autowired; import org.springframework.boot.test.context.SpringBootTest;  import java.util.List; import java.util.Map;  @SpringBootTest class WeixinApplicationTests {   @Test  void contextLoads() {  }   //注入service对象  @Autowired  private TokenService tokenService;   @Autowired  private UserService userService;   @Autowired  private MsgService msgService;   @Test  public void getAccessToken(){  Map<String, Object> map = tokenService.getAccessTokenService(Token.instance());  //打印access\_token后面都会用到  System.out.println(map.get("access\_token"));  //有效时间（默认2小时）  System.out.println(map.get("expires\_in"));   Users users = userService.loadUsers((String) map.get("access\_token"));  //获取关注该公众号的用户  System.out.println(users.getData());   //获取accesstoken  String access\_token = (String) map.get("access\_token");  //获取关注用户的id  List<String> openid = users.getData().get("openid");   //发送模板信息  msgService.sendMsg(access\_token,openid);   } } |