**Python 百度AI识别车牌并读取**

**本节所讲内容：**

1. **百度平台接口实现**
2. **官方文档的读取**
3. **利用百度AI识别车牌**
4. **读取车牌识别结果**

**1、百度平台接口实现**

**1.1.平台接入：**

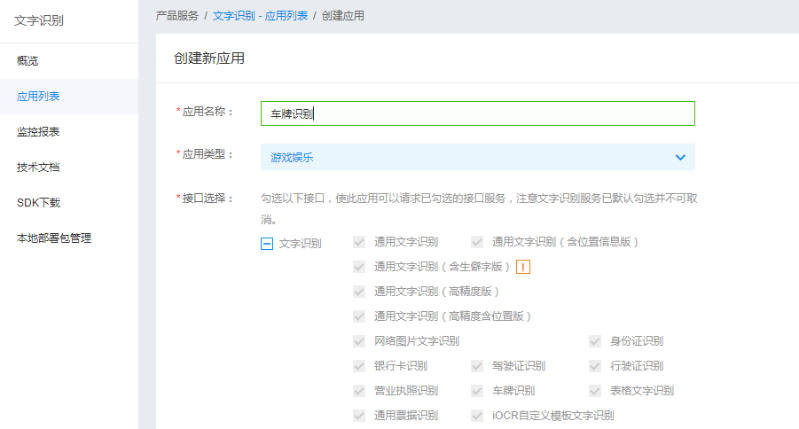
**1.打开**[**https://ai.baidu.com/**](https://ai.baidu.com/)**进入控制台，选择文字识别服务。**



**2.创建应用，如图示：**

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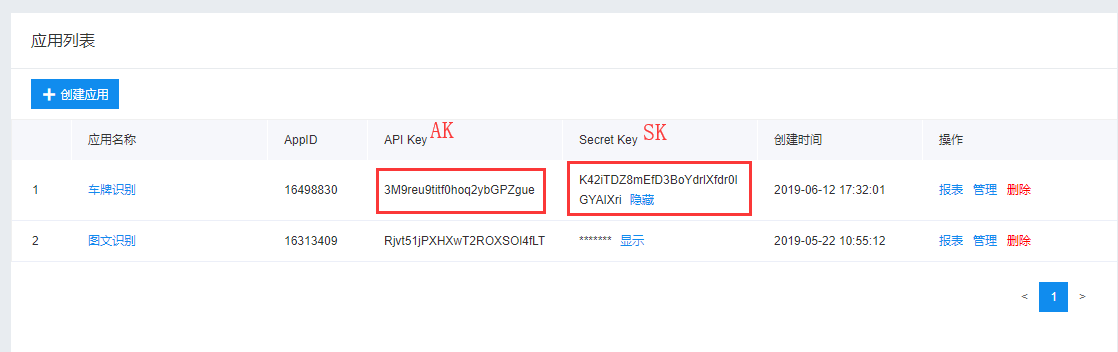
**3.输入应用名称、描述，并选择应用类型，之后点击“立即创建”按钮。**

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**4.创建完毕，点击“返回应用列表”。**

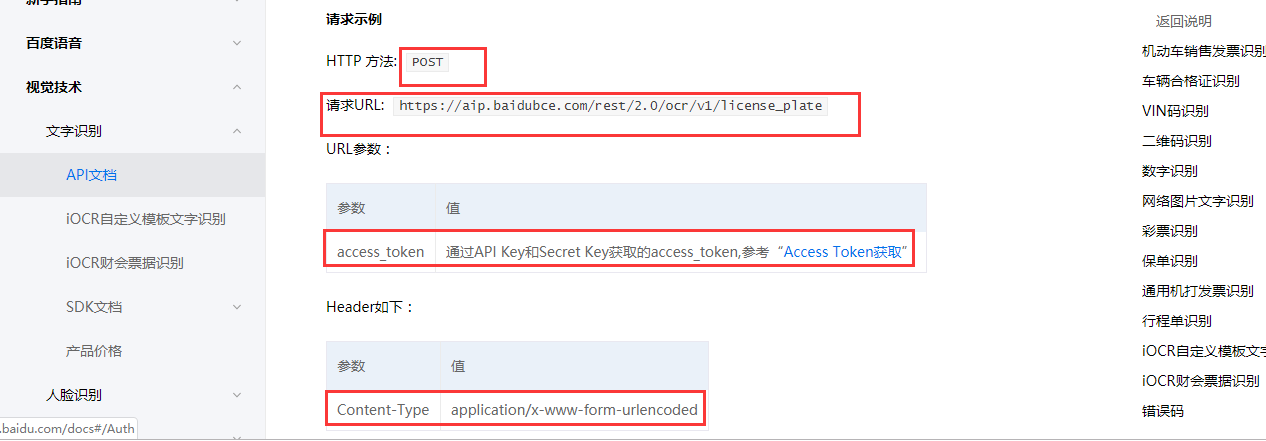
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**5.此处显示AK,SK，后面程序中会用到**

**2. 官方文档的读取**

**1.打开**[**https://ai.baidu.com/docs#/OCR-API/top**](https://ai.baidu.com/docs#/OCR-API/top) **文档说明**





**需要用到的信息有：**

**（1）请求URL:**[**https://aip.baidubce.com/rest/2.0/ocr/v1/license\_plate**](https://aip.baidubce.com/rest/2.0/ocr/v1/license_plate)

**（2）Header格式：Content-Type：application/x-www-form-urlencoded**

**（3） 请求参数：image和multi\_detect两个参数，image为图像数据，base64编码后进行urlencode，要求base64编码和urlencode后大小不超过4M。multi\_detect是否检测多张车牌，默认为false，当置为true的时候可以对一张图片内的多张车牌进行识别。**

**（4）返回参数：车牌颜色Color、车牌号码number等。**

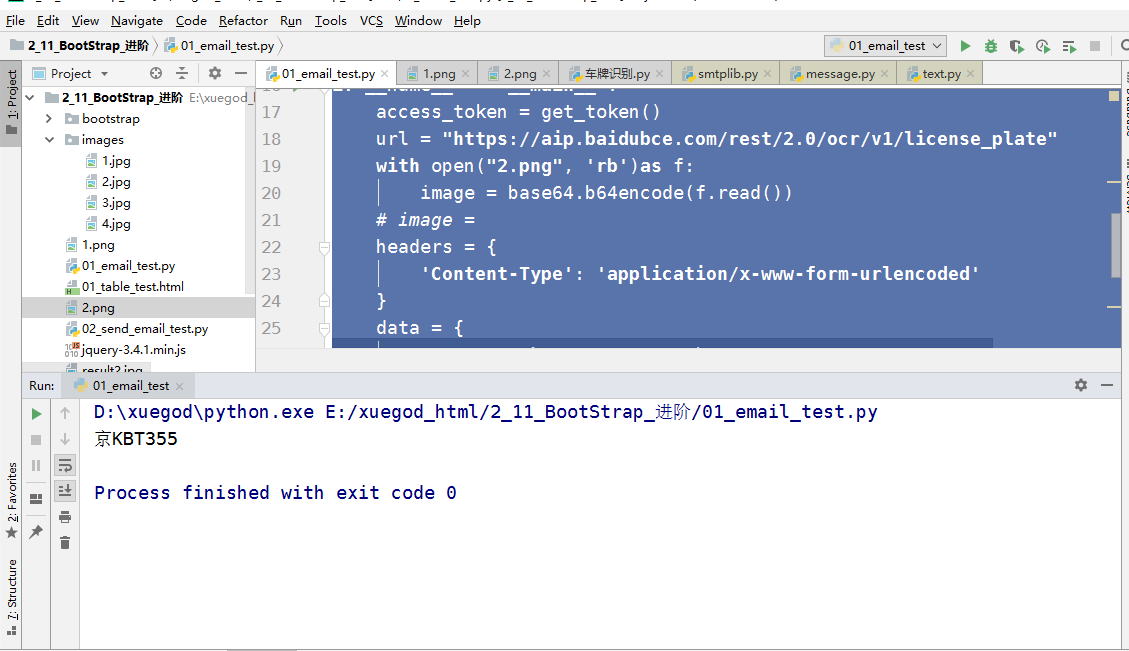
**那我们现在本地图片识别：**



**代码如下：**

**import base64  
import requests  
def get\_token():  
 get\_token\_url = "https://aip.baidubce.com/oauth/2.0/token"  
 params = {  
 "grant\_type": "client\_credentials",  
 "client\_id": "3M9reu9titf0hoq2ybGPZgue",  
 "client\_secret": "K42iTDZ8mEfD3BoYdrlXfdr0IGYAIXri",  
 }  
 res = requests.get(get\_token\_url, params).json()  
 return res["access\_token"]  
if \_\_name\_\_ == '\_\_main\_\_':  
 access\_token = get\_token()  
 url = "https://aip.baidubce.com/rest/2.0/ocr/v1/license\_plate"  
 with open("2.png", 'rb')as f:  
 image = base64.b64encode(f.read())  
 *# image =* headers = {  
 'Content-Type': 'application/x-www-form-urlencoded'  
 }  
 data = {  
 "access\_token": access\_token,  
 "image": image  
 }  
 res = requests.post(url, headers=headers, data=data).json()['words\_result']  
 print(res["number"])**

**运行结果如下图：**



**注意：目前来对外国车牌识别有所欠缺。**

1. **读取车牌识别结果**

**让电脑发出声音需要安装一个模块，也就是大家很熟悉的pyttsx3 当然如果你是python2 版本，你需要安装pyttsx。**

**pyttsx3 的安装：pip3 install pyttsx3**

**完整代码如下：**

**import base64  
import requests  
import pyttsx3  
  
def get\_token():  
 get\_token\_url = "https://aip.baidubce.com/oauth/2.0/token"  
 params = {  
 "grant\_type": "client\_credentials",  
 "client\_id": "3M9reu9titf0hoq2ybGPZgue",  
 "client\_secret": "K42iTDZ8mEfD3BoYdrlXfdr0IGYAIXri",  
 }  
 res = requests.get(get\_token\_url, params).json()  
 return res["access\_token"]  
  
  
if \_\_name\_\_ == '\_\_main\_\_':  
 access\_token = get\_token()  
 url = "https://aip.baidubce.com/rest/2.0/ocr/v1/license\_plate"  
 with open("2.png", 'rb')as f:  
 image = base64.b64encode(f.read())  
 *# image =* headers = {  
 'Content-Type': 'application/x-www-form-urlencoded'  
 }  
 data = {  
 "access\_token": access\_token,  
 "image": image  
 }  
 res = requests.post(url, headers=headers, data=data).json()['words\_result']  
 print(res["number"])  
 data = res['number']  
 say\_data = ','.join(data)  
 *# print(say\_data)* engine = pyttsx3.init()  
 rate = engine.getProperty('rate')  
 engine.setProperty('rate',rate-100)  
 engine.say(data)  
 engine.runAndWait()**

**总结：**

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