DestroyerRobot 下 ApiTesting 全链路接口自动化测试框架

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简介:

此框架是基子 Python+Unittest+BeautifulReport+requests+Config+yaml+json+ddt 实现全链路接口看动化数据驱动测试。

主要流程:解析接口数据包->生成接口基础配置(config 项目主配置文件+yaml 子项目主配文件)->生成测试用例(yaml+json)->生成测试脚本(.py)->运行测试纷累(unittest)->生成测试报告(BeautifulReport)。

测试流程:初始化请求->除了接口基础信息->读取前置接口用例->发送前置接口->处理当前接口数据->发送当前接口->检查接口返回。

接口自动化测试几丈快:测试用例设计、测试脚本编写、测试结果校验、测试报告生成、测试配置管理。

而这些本框架逼逼已经解决,无需编写冗余代码,基本以 copy 和修改参数为准,需要获取接口数据信息即可。

关于接口依赖: 只要镇写前置接口对应路径即可, 如果存在数据依赖关系, 此时你可以 镇写前置接口对应的参数值, 本框架将自动为你调用和替换关联数据。

关于测试数据:本框架采用 yaml 配置模板信息, excel 文件保存请求参数和执行结果数据,将执行 json 信息写入到 excel 文件中,解决各类数据错综复杂的问题。

关于参数化:本框架提供了大量的 util 类来满足使用者对数据操作及采集。

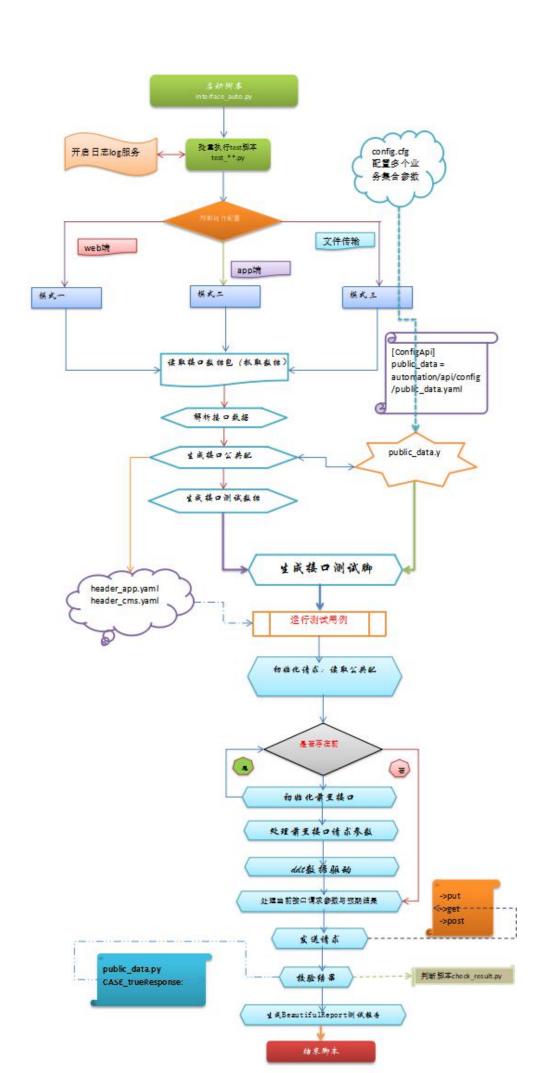
目前主要支持三种位行模型:

>0、web 端接口请求

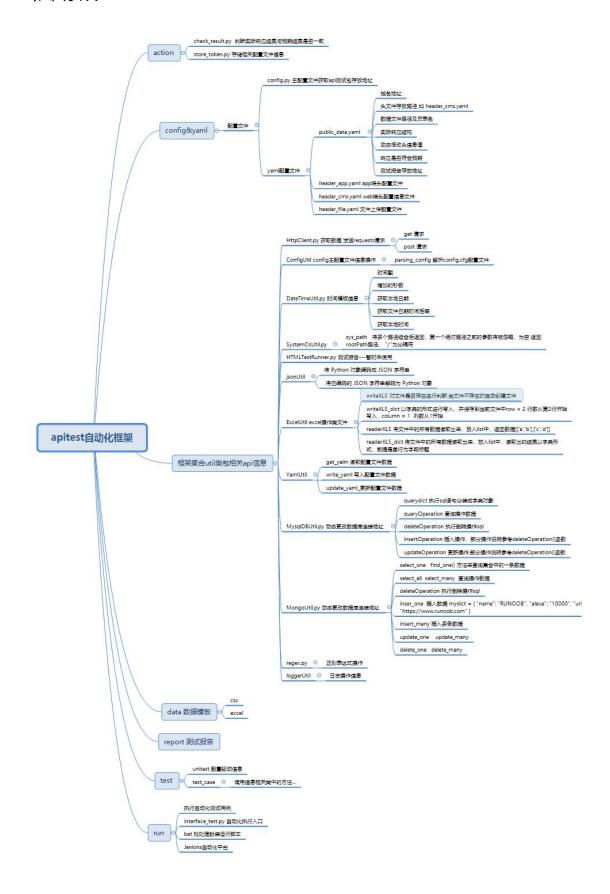
>1、交件传输

>2、app 端接口清求

框架流程图:



项目结构:



执行入口: run interface_test.py

```
#I/usr/bin/env python
# -*- coding: utf-8 -*-
# @Time : 2020/11/9 15:45
#@Author:vivid
#@Email: 331597811@163.com
# @File : interface_auto.test.py
import unittest
from BeautifulReport import BeautifulReport
from DestroyerRobot.automation.util.LoggerUtil import Log
from DestroyerRobot.automation.util.ConfigUtil import Config
from \ Destroyer Robot. automation. util. System Os Util \ Import \ System Os
from DestroyerRobot.automation.util.YamiUtil import yamiUtil
from \ Destroyer Robot. automation. util. Date Time Util \ import \ Test Date Time
class testFileReport:
    def apis_yami(self):
        conf = Config("ConfigApi")
        api_path = conf.get_configPath("public_data")
        api_yami = SystemOs().sys_path(api_path)
        report = yamiUtii(api_yami).get_yalm()
        {\tt report\_path = SystemOs().sys\_path(report['report'])}
        test_path = SystemOs().sys_path(report['test_path'])
        # 0 报告他位 , 1 测试数据集他位
        return report_path.test_path
```

操作脚本: test_test_cms.py

```
import unittest
import time
from ddt import ddt,data,unpack
from \ Destroyer Robot. automation. util. Config Utili \ import \ Config
from \ Destroyer Robot. automation. util. System Os Util \ import \ System Os
from DestroyerRobot.automation.util.YamiUtil import yamiUtil
from \ Destroyer Robot. automation. util. ExcelUtil \ import \ xis xoper
from DestroyerRobot.automation.util.LoggerUtil import Log
from \ Destroyer Robot. automation. util. \textit{HttpCilent import HttpCilent}
from \ Destroyer Robot. automation. api. action. check\_result\ import\ Check Result
from \ Destroyer Robot. automation. api. action. store\_token \ import \ stort\_token
@ddt
class TestCase(unittest.TestCase):
    全局变量中将 excel 中首的标题提取:testdata2.yaml 数据返回结果:datainfo
    新脚本中配置新的 excel 需要改写内容和下 : 对应新的配置交件信息
    global:全局查量
```

```
file_path = SystemOs().sys_path(datainfo['file_path2'])
   testdata = xisxoper(file_path).readerXLS_dict(datainfo['SheetName2'])[0] # 數場用子ddt 使用
   testdata2 = xisxoper(file_path).readerXLS_dict(datainfo['SheetName2'])[1] # 省份标题
   机行脚本对应的 excel 第入 sheet
   xis = xisxoper(file_path).writeXLS_dict(datas['caseNo'],column,str(responseData),datainfo['SheetName2'])
   global log , file_path,datainfo,testdata2
   log = Log().logger()
   conf = Config("ConfigApi")
   keys = conf.parsing_config("public_data")
   public_data = SystemOs().sys_path(keys) #通过主配置支件 config 获取主 yami 配置支件路径-
   datainfo = yamiUtii(public_data).get_yalm()
   file_path = SystemOs().sys_path(datainfo['file_path2'])
   testdata = xisxoper(file_path).readerXLS_dict(datainfo['SheetName2'])[0] # 數場用子ddt 使用
   testdata2 = xisxoper(file_path).readerXLS_dict(datainfo['SheetName2'])[1] # 省份舒服
     #testdata,testdata2 = xlsxoper(file_path).readerXLS_dlct(dataInfo['SheetName2']) # 🐐 testdata,testdata2
   #*testdata 只获取数据
   @data(*testdata)
   def test_01_demo(self, datas):
       ,,,,,
       接口测试
       :param datas: 从 yami 文件中获取 excel 路径,续取数据集,通过 ddt 形式
       isSkip = datas['isSkip'] # 校取 excle 中 isSkip
       if isSkip == 'y':
           log.info("省 isSkip==y 跳过此条用例")
       else:
           #print("datas:",datas)
           webapp = datas['setApp']
           setApp=datainfo[webapp]
                                       #获取 excel 中设备基型 setApp 是网页还是手机
           log.info('setApp: %s '.setApp)
           C:/Users/vivid/PycharmProjects/untitled/DestroyerRobot/yami_file/header_cms.yami
           header = yamiUtil(setpath).get_yaim() # 获取 header 信息
           url = datainfo[datas['domain']]+datas['requestUrl']
           #"绪束方式=%s",datas['method'],"绪束参数=%s",datas['param'] "绪束格式=%s",datas['paramType'],"绪束
头部信息=%s".header
           log.info("猜束他位=%s",uri)
```

```
# log.info("循東方式= %s".datas['method'])
           # log.info("循束格式=%s",datas['paramType'])
           # log.info("循束头部信息= %s".header)
           responseData = HttpCilent().request(datas['method'],url,datas['paramType'],datas['param'],header) # 実 降
结果
           log.info("实际响应结果: %s".responseData)
           responseResuit = CheckResuit.check(responseData, datas["exceptResponse"])
           log.info("判断预期结果与实际结果是否一致: 0 为 False 1 为 True = %s ",responseResult)
           # 判断显否将 token 写入 yami 对应的文件中
stort\_token (responseData, we bapp, setpath, responseResult\_datas['istoken']\_datainfo['token']\_datainfo['Authorization']).to
ken()
           #查找 CASE_trueResponse 中 value 值对应 excel 的列位置
           column = testdata2.index(datainfo['CASE_trueResponse'])
           # % N excel #
           log.info("将实际响应结果集数据写入 excel 中对应列")
           #写入 excel 数据必须是字符串,不能是 dict
           xis = xisxoper(file_path).writeXL_S_dict(datas['caseNo'],column,str(responseData),datainfo['SheetName2'])
           time.sleep(1)
if _name_ == '_main_':
   unittest.main()
```

判断脚本 action check_result.py store_token.py

```
class CheckResuit():

"""

responseData:對新家陸烏危德果岛孫朝德果是老一故
exceptResponse:

"""

@classmethod

def check(self, responseData, exceptResponse):

If Isinstance(responseData, str):

responseData = eval(responseData)

If Isinstance(exceptResponse, str):

exceptResponse = eval(exceptResponse)

for key, value in exceptResponse.ltems():

If key in responseData:

If responseData[key] == value:

responseResuit = 1

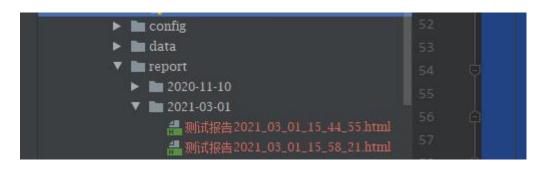
else:

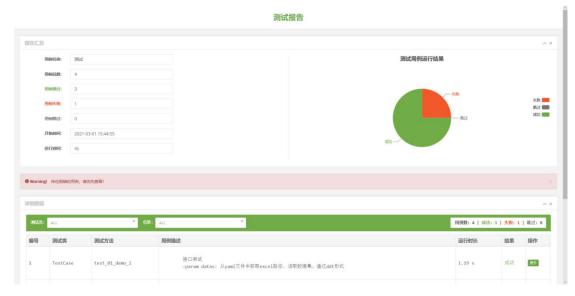
responseResuit = 0
```

```
return responseResult
            else:
                 responseResult = 0
                 return responseResult
        return responseResult
class stort_token:
    stort_token 只是为了满足权限系统而作
    def_init_(self,responseData,setApp,setpath,responseResult,istoken,token_value,Authorization):
        self.responseData = responseData
        self.istoken = istoken
        self.setpath = setpath
        self.setApp = setApp
        self.responseResult = responseResult
        self.tokenvalue =token_value
        self.Authorization = Authorization
        self.log = Log().logger()
    def token(self):
        ."\n\t".self.setpath
                                                                                                              ."\n\t".
self.setApp , "\n\t" , self.responseResult , "\n\t" , self.tokenvalue , "\n\t" , self.Authorization )
        if self.istoken:
            if self.responseResult:
                 if "data" in self.responseData.keys():
                     if self.responseData["data"] == None:
                         self.log.info("data 是为 null")
                     else:
                         if self.tokenvalue in self.responseData['data'].keys():
                             reToken = self.responseData["data"][self.tokenvalue]
                             #在权限系统中生成"Bearer"+applicationToken 对应 Authorization
                             reAuthorization = "Bearer"+self.responseData["data"]["applicationToken"]
                             self.log.info("reToken:%s" % reToken)
                             if self.setApp == 1:
                                  data = yamiUtii(self.setpath).get_yalm()
                                 if self.tokenvalue in data.keys():
                                      yamlUtll(self.setpath).update\_yaml(self.tokenvalue,reToken)\\
                                  else:
                                      Token = {self.tokenvalue: reToken}
                                      yamiUtii(seif.setpath).write_yami(Token)
                                  if self.Authorization in data.keys():
                                      yamiUtil(self.setpath).update\_yaml(self.Authorization,reAuthorization)
```

```
Authorization = {self.Authorization: reAuthorization}
yamiUtil(self.setpath).write_yami(Authorization)
ellf self.setApp == 2:
data = yamiUtil(self.setpath).get_yalm()
If self.tokenvalue in data.keys():
yamiUtil(self.setpath).update_yami(self.tokenvalue,reToken)
else:
reToken = {self.tokenvalue : reToken}
yamiUtil(self.setpath).write_yami(reToken)
else:
self.log.lnfo("看录该有适图 token")
else:
self.log.lnfo("response 该有 data 是")
else:
self.log.lnfo("看录失%")
else:
self.log.lnfo("不是看录")
```

测试报告实例: 按照日期生成对应测试报告





执行 excel 数据结果: 异常测试以报告为准

o project	api	setApp	method	istoken	domain	requestUrl	param	aramTyp	isSkip	exceptResp	ctrueResponse
1 new_cms	登录成功	1	post	1.	uatPmsSso	/api/login	l "mobile": 18718754044, 'appFlag': 'aspFlag': 'aspFlag': 'aspFlag': 'aspFlag': 'aspFlag': 'wJFlCkIWDpHT9odN 'afsSesionId': 'uJFlCkIWDpHT9odN 'afsSesionId': 'afsSe	json	n	{	f code 2000 'sag
2 new_cms	进入测试环境	1	post	0 t	napi	/user/api/getUserInfo	{ fidf: "611" }	json	n	{ 'code': 200, 'msg': '成功' }	#100 mg mgmm regionare wellows crystal ; according to 1000 mg mgmm regionare wellows (1000 mg mgmm regionare 1000 mg mg mgmm regionare 1000 mg mg mg mg mg mg mg mgmm regionare 1000 mg
3 new_cms	城市信息	1	post	0 t	napi	/city/xysCity/getAll	{"cityid":"',"provinceid ":"',"regionId":","pag eSize":10,"pageNum": 1}	json	n	("code": 200, "msg": "超功	
4 new_cms	客户跟进 列表	1	post	0 t	napi	/follow/customer/order/follow/ list	("cityid":","devld":"," buildingId":","unitId": "","floorId":","housel d":","customerSourc e":","customerName		n	{ "code": 200, "msg": "成功	