Captcha.Py

在当前页面找到 text，button

```python
def click_button(b, id, dest_text, j):
    txt = ''
    for i in range(0, 5):
        try:
            txt = b.find_element_by_id(id).text
            if txt == dest_text:
                b.find_element_by_id(id).click()
                return 0
            else:
                return 1

        except:
            time.sleep(1)
            continue

    return -1


def find_button(b, id, dest_text):
    txt = ''
    try:
        txt = b.find_element_by_id(id).text
        if txt == dest_text:
            return 0
    except:
        # print("find_button Error --page txt is "+txt+" input text is "+dest_text)
        return -1

    return -1
```

错误时，点击刷新按钮

```python
def click_refresh(b):
    try:

b.find_element_by_xpath("//*[@id='loginForm']/div/ul[2]/li[4]/div/div/div[1]").click()
    except:
```

```
            print("click_refresh:exception!!!!")
```

初始化游览器

```
def init_browser(b):
    b.maximize_window()
```

进入登录页面。如果登录就先退出

```
def visit_login_page(b):
    url = 'https://kyfw.12306.cn/otn/index/init'
    b.get(url)
    if find_button(b, u"login_user", u"登录") != 0:   # 没退出
        click_button(b, u"regist_out", u"退出", 0)   # 点击退出
        time.sleep(5)   # 休息 5 秒再查看是否退出

    if click_button(b, u"login_user", u"登录", 0) != 0:   # 点击登陆按钮
        return -1   # Error happened!!

    time.sleep(10)   # 访问 login page 后休息 10 秒，等待验证码图片加载完成
    return 0
```

截图一张验证码图片，并进行破解

```
def get_a_verify_pic(b):
    imgelement                                                      =
b.find_element_by_xpath("//*[@id='loginForm']/div/ul[2]/li[4]/div/div/div[3]")
    location = imgelement.location
    size = imgelement.size
    rangle = (int(location['x']), int(location['y']), int(location['x'] + size['width']),
              int(location['y'] + size['height']))
    b.save_screenshot('pic.png')
    i = Image.open("pic.png")
    pic_name = 'verify_code' + ".jpg"
    frame4 = i.crop(rangle)
    frame4.save(pic_name)
    return pic_name

    def ana_pic(b, pic_name):
        body_list = []
        url = '''http://littlebigluo.qicp.net:47720/'''
        files = {'file': (pic_name, open(pic_name, 'rb'), 'img/png')}
```

```python
        res = requests.post(url, files=files)    # post pic

        if res.status_code == 200:    # return ok
            try:
                # print(res.text)
                if u"文字应该" in res.text:
                    body_str_1 = res.text.split(u'''<B>''')
                    body_str = body_str_1[2].split(u'<')[0].split()
                    for index in body_str:
                        body_list.append(int(index))
                    return 0, numpy.array(body_list)

            except:
                print("ana pic failed!!!!")
                return -1, None

        return -1, None
```

点击验证图片

```python
    def click_one_pic(b, i):
        try:
            imgelement                                                                   =
b.find_element_by_xpath("//*[@id='loginForm']/div/ul[2]/li[4]/div/div/div[3]")
            if i <= 4:
                ActionChains(b).move_to_element_with_offset(imgelement, 40 + 72 *
(i - 1), 73).click().perform()
            else:
                i -= 4
                ActionChains(b).move_to_element_with_offset(imgelement, 40 + 72 *
(i - 1), 145).click().perform()
        except:
            print("Wa -- click one pic except!!!")


    def click_pic(b, body_list):
        for i in range(len(body_list)):
            click_one_pic(b, body_list[i])
            time.sleep(1)
```

更具预先输入好的用户名密码。点击验证

```python
def login(b):
    pic_name = None
    try:

        pic_name = get_a_verify_pic(b)
        ret_val, body_list = ana_pic(b, pic_name)

        username = b.find_element_by_id('J-userName')
        username.clear()
        username.send_keys('18867741831')
        password = b.find_element_by_id('J-password')
        password.clear()
        password.send_keys('asd134679')
        time.sleep(2)

        if ret_val != 0:
            # print("login : what??? predict return error!!")
            print("login -- no verified pic!!! !!")
            os.remove(pic_name)   # exception occured
            # click_refresh(b)
            return -1

        if len(body_list) == 0:   # no pic recognized
            click_refresh(b)
            print("login : what??? body list is null!!!")
            os.remove(pic_name)   # exception occured
            return 1   # verified failed

        click_pic(b, body_list)
        time.sleep(1)
        if click_button(b, u"loginSub", u"登录", 0) != 0:
            print("login : what??? click button exception!!!")
            return -1   # Error happened!!
    except:
        if None != pic_name:
            os.remove(pic_name)   # exception occured
        print("login:exception!!")
        return -1

    time.sleep(5)
    ret_val = find_button(b, u"error_msgmypasscode1", u"请点击正确的验证码")
    if ret_val == 0:
        print("login--Verified code error!!!")
        return 1
```

```python
            os.remove(pic_name)
            print("login--successfully!!!")
            return 0def

    try_login(b):
        for k in range(0, 5):
            rt_val = login(b)
            if rt_val < 0:   # error happened
                print("verify got exception!!")
                time.sleep(10)
                continue
            elif rt_val == 1:   # verified code error
                print("verify - code error!!")
                time.sleep(5)
                continue    # login again
            else:   # login successfully
                print("login successfully!!!")
                return 0

        return -1   # login failed
```

主程序

```python
def mylogin():

    b = webdriver.Chrome()
    init_browser(b)
    visit_login_page(b)

    ret_val = try_login(b)   # 尝试登录
    if ret_val < 0:
        print("main -- try_login failed!!!")
    else:
        print("main -- try_login successfully!!!")

    print("Good job！bigluo！！ ")
    return "Good job！bigluo！！ "
```

A server error occurred. Please contact the administrator.