

## Flask框架实现文件服务器（支持上传和下载）



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关注

IP属地: 广东



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最近测试的时候需要模拟一个文件服务器，支持文件的上传和下载功能。百度了一下各位大神的博客，结合公司的实际情况，写了一个文件服务器。

环境信息：python3.7.4 + Flask (1.1.1)

测试工具：requests(2.22.0)

目录结构：

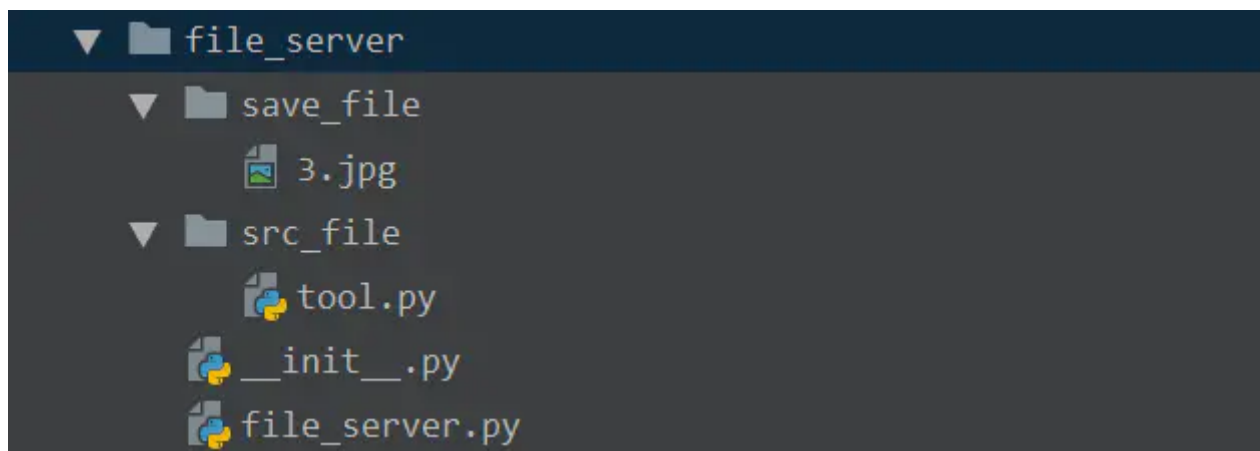


image.png

---

代码如下:

```
import os
from string import Template
from flask import Flask, request, send_file
from werkzeug.utils import secure_filename

app = Flask(__name__)
pwd = os.path.dirname(__file__)

#定义文件的保存路径和文件名后缀
UPLOAD_FOLDER = os.path.join(pwd, 'save_file')
ALLOWED_EXTENSIONS = {'txt', 'pdf', 'png', 'jpg', 'jpeg', 'gif'}
app.config['UPLOAD_FOLDER'] = UPLOAD_FOLDER

HOST = "192.168.52.235"
PORT = 5000

@app.route('/index')
def index():
    """
    返回一个网页端提交的页面
    :return:
    """
    html = Template("""
    <!DOCTYPE html>
    <html>
    <body>

    <form action = "http://$HOST:$PORT/upload" method = "POST"
    enctype = "multipart/form-data">
    <input type = "file" name = "file" />
```

```

        <input type = "submit"/>
    </form>

    </body>
</html>
"""
html = html.substitute({"HOST": HOST, "PORT": PORT})
return html

def allowed_file(filename):
    """
    检验文件名尾缀是否满足格式要求
    :param filename:
    :return:
    """
    return '.' in filename and \
        filename.rsplit('.', 1)[1].lower() in ALLOWED_EXTENSIONS

@app.route('/upload', methods=['GET', 'POST'])
def upload_file():
    """
    上传文件到save_file文件夹
    以requests上传举例
    wiht open('路径','rb') as file_obj:
        rsp = requests.post('http://localhost:5000/upload,files={'file':file_obj})
        print(rsp.text) --> file uploaded successfully
    """
    if 'file' not in request.files:
        return "No file part"
    file = request.files['file']
    if file.filename == '':
        return 'No selected file'
    if file and allowed_file(file.filename):
        filename = secure_filename(file.filename)
        file.save(os.path.join(app.config['UPLOAD_FOLDER'], filename))
        return 'file uploaded successfully'
    return "file uploaded Fail"

```

```
75 @app.route("/download")
76 def download_file():
77     """
78     下载src_file目录下面的文件
79     eg : 下载当前目录下面的123.tar 文件, eg:http://localhost:5000/download?fileId=123.tar
80     :return:
81     """
82     file_name = request.args.get('fileId')
83     file_path = os.path.join(pwd, 'src_file', file_name)
84     if os.path.isfile(file_path):
85         return send_file(file_path, as_attachment=True)
86     else:
87         return "The downloaded file does not exist"

if __name__ == '__main__':
    app.run(host=HOST, port=PORT)
```

通过浏览器上传。

## 1.打开web上传页

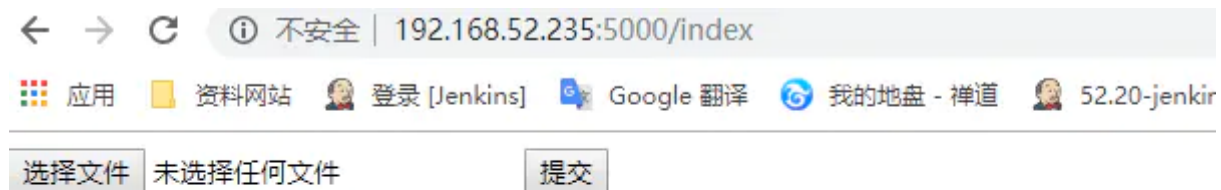


image.png

## 2.选择上传文件

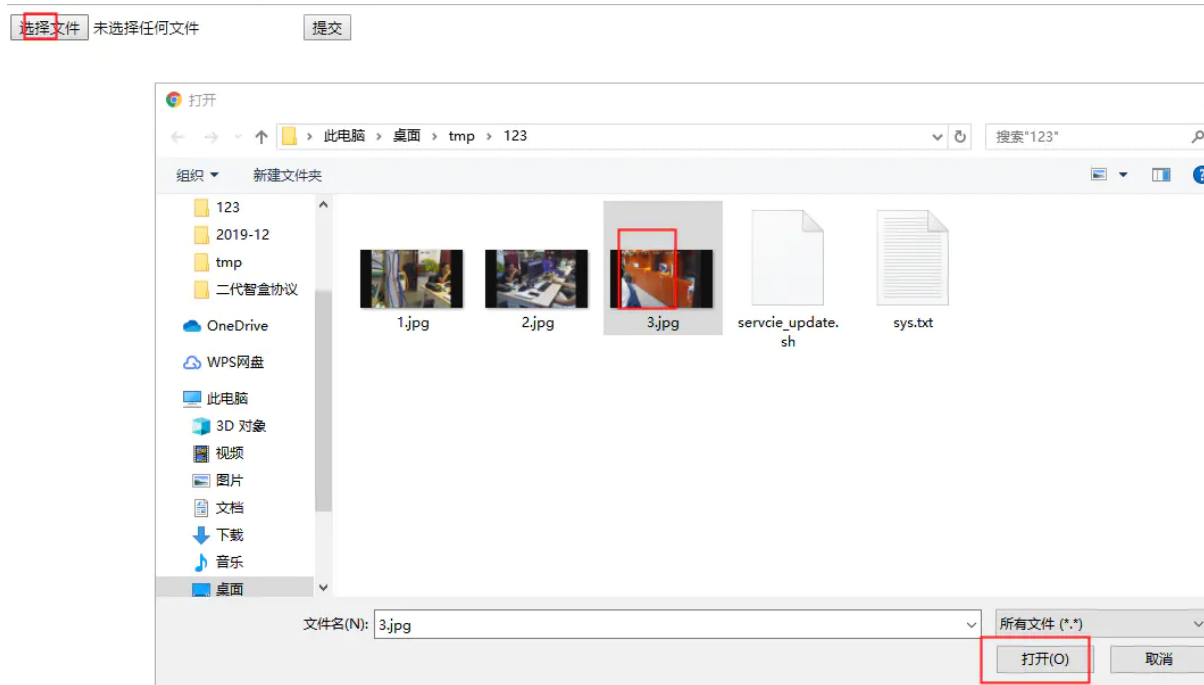
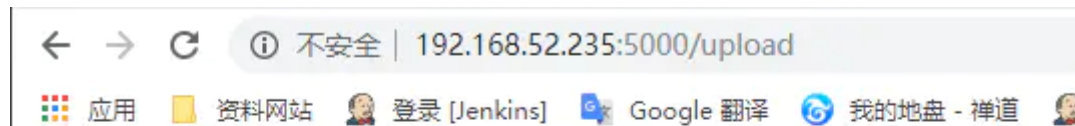


image.png

## 3.点击提交，查看结果：



ps: 如果save\_file有同名的文件会直接覆盖，如果需做备份和报错处理，可自行研究（常用的文件操作）

通过requests上传，代码如下：

```
1 #文件服务器的测试脚本
2 import requests
3
4 URL="http://192.168.52.235:5000/upload"
5
6 f = open(r'D:\work\tools\file_server\templates\upload.html', 'rb')
7
8 rsp = requests.get(URL, files={'file':f})
9 print(rsp.text)
```

下载src\_file下面的文件的url，get或者post都支持，浏览器直接打开，或者接口调用工具打开；  
url:<http://localhost:5000/download?fileId=tool.py>



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