

Java Spring Framework Example

- [1. Uploading Images, Videos and Files](#)
- [2. Importing HWP, MS Word and Excel Documents](#)

Among the following codes provided as the guide, file upload part is a **sample code** and has insufficient security.

As for the file upload, please use the code used within your project and refer the following code to handle the system link.



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1. Uploading Images, Videos and Files

upload

```
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.bind.annotation.ResponseBody;
import org.springframework.web.multipart.MultipartFile;

import javax.servlet.http.HttpServletRequest;
import java.io.*;
import java.util.*;

@Controller
public class UploadController {
    static String IMAGE_UPLOAD_DIR_REL_PATH = "uploads";

    @RequestMapping(value = "/uploadFile", method = RequestMethod.POST)
    @ResponseBody
    public Map<String, Object> uploadFile(HttpServletRequest request, @RequestParam("file")
MultipartFile file)
        throws IOException {
        String ROOT_ABS_PATH = request.getSession().getServletContext().getRealPath("");
        String UPLOAD_DIR_ABS_PATH = ROOT_ABS_PATH + File.separator + IMAGE_UPLOAD_DIR_REL_PATH;

        makeDirectory(UPLOAD_DIR_ABS_PATH);

        String fileName = file.getOriginalFilename();
        String ext = "";
        String contentType = file.getContentType();
        if(contentType != null) {
            ext = "." + contentType.substring(contentType.lastIndexOf('/') + 1);
        } else if (fileName.lastIndexOf('.') > 0) {
            ext = fileName.substring(fileName.lastIndexOf('.'));
        }
        if (ext.indexOf(".jpeg") > -1) { // jpeg is converted into jpg as jpg is more frequently used
            ext = ".jpg";
        }
        String saveFileName = UUID.randomUUID().toString() + ext;
        String saveFileAbsPath = UPLOAD_DIR_ABS_PATH + File.separator + saveFileName;

        writeFile(saveFileAbsPath, file.getBytes());
    }
}
```

```

        Map<String, Object> map = new HashMap<String, Object>();

        // Include the path to which the browser can access in uploadPath and transfer it.
        map.put("uploadPath", "uploads/" + saveFileName);

        return map;
    }

    /**
     * Write a file.
     */
    private static void writeFile(String path, byte[] bytes) throws IOException {
        OutputStream os = null;
        try {
            os = new FileOutputStream(path);
            os.write(bytes);
        } finally {
            if (os != null) os.close();
        }
    }

    /**
     * When there is no directory, create a directory.
     */
    private static void makeDirectory(String dirPath) {
        File dir = new File(dirPath);
        if (!dir.exists()) {
            dir.mkdir();
        }
    }
}

```

2. Importing HWP, MS Word and Excel Documents

import

```

import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestMethod;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.bind.annotation.ResponseBody;
import org.springframework.web.multipart.MultipartFile;

import javax.servlet.http.HttpServletRequest;
import java.io.*;
import java.util.*;
import java.util.zip.InflaterInputStream;

@Controller
public class ImportController {
    static String DOC_UPLOAD_DIR_REL_PATH = "uploads" + File.separator + "docs";
    static String OUTPUT_DIR_REL_PATH = "uploads" + File.separator + "output";

    @RequestMapping(value = "/importDoc", method = RequestMethod.POST)
    @ResponseBody
    public Map<String, Object> importDoc(HttpServletRequest request, @RequestParam("file") MultipartFile
importFile)
        throws IOException {
        String ROOT_ABS_PATH = request.getSession().getServletContext().getRealPath("");
        String UPLOAD_DIR_ABS_PATH = ROOT_ABS_PATH + File.separator + DOC_UPLOAD_DIR_REL_PATH;

        makeDirectory(UPLOAD_DIR_ABS_PATH);

        String fileName = importFile.getOriginalFilename();
        String inputFileAbsPath = UPLOAD_DIR_ABS_PATH + File.separator + fileName;

```

```

writeFile(inputFileAbsPath, importFile.getBytes());

// Create paths to store conversion results by file
Calendar cal = Calendar.getInstance();
String yearMonth = String.format("%04d%02d", cal.get(Calendar.YEAR), cal.get(Calendar.MONTH)+1);
String uuid = UUID.randomUUID().toString();
String worksDirAbsPath = ROOT_ABS_PATH + File.separator + OUTPUT_DIR_REL_PATH + File.separator +
yearMonth + File.separator + uuid;

makeDirectory(worksDirAbsPath);

// Document conversion
executeConverter(inputFileAbsPath, worksDirAbsPath);

// Delete the original file once the conversion is completed.
deleteFile(inputFileAbsPath);

// Read the converted pb files and serialize them.
// Since v2.3.0, the file name is changed from document.word.pb to document.pb
String pbAbsPath = worksDirAbsPath + File.separator + "document.pb";
Integer[] serializedData = serializePbData(pbAbsPath);

// Delete pb file
// Since v2.3.0, the file name is changed from document.word.pb to document.pb
deleteFile(pbAbsPath);

Map<String, Object> map = new HashMap<String, Object>();
map.put("serializedData", serializedData);
// Contain the path to which the browser can access in importPath and transfer it.
// Modify according to the path in OUTPUT_DIR_REL_PATH.
map.put("importPath", "uploads/output/" + yearMonth + "/" + uuid);

return map;
}

/**
 * Run document conversion module.
 */
public static int executeConverter(String inputFilePath, String outputFilePath) {
    String SEDOC_CONVERTER_DIR_ABS_PATH = "Absolute path of the directory in which the conversion
module exists";
    String FONT_DIR_ABS_PATH = SEDOC_CONVERTER_DIR_ABS_PATH + File.separator + "fonts";
    String TEMP_DIR_ABS_PATH = SEDOC_CONVERTER_DIR_ABS_PATH + File.separator + "temp";
    String SEDOC_CONVERTER_ABS_PATH = SEDOC_CONVERTER_DIR_ABS_PATH + File.separator +
"sedocConverter_exe";
    // String SEDOC_CONVERTER_ABS_PATH = SEDOC_CONVERTER_DIR_ABS_PATH + File.separator +
"sedocConverter.exe";// For window server

    makeDirectory(TEMP_DIR_ABS_PATH);
    makeDirectory(FONT_DIR_ABS_PATH);

    // Configure conversion command
    String[] cmd = {SEDOC_CONVERTER_ABS_PATH, "-f", FONT_DIR_ABS_PATH, inputFilePath,
outputFilePath, TEMP_DIR_ABS_PATH};
    try {
        Timer t = new Timer();
        Process proc = Runtime.getRuntime().exec(cmd);

        TimerTask killer = new TimeoutProcessKiller(proc);
        t.schedule(killer, 20000); // 20 seconds (the process shall be terminated if the
conversion is not completed within 20 seconds)

        int exitValue = proc.waitFor();
        killer.cancel();

        return exitValue;
    } catch (Exception e) {
        e.printStackTrace();
        return -1;
    }
}
}

```

```

/**
 * Serialize the conversion result after running document module.
 */
public static Integer[] serializePbData(String pbFilePath) throws IOException {
    List<Integer> serializedData = new ArrayList<Integer>();
    FileInputStream fis = null;
    InflaterInputStream ifis = null;
    Integer[] data = null;

    try {
        fis = new FileInputStream(pbFilePath);
        fis.skip(16);

        ifis = new InflaterInputStream(fis);
        byte[] buffer = new byte[1024];

        int len;
        while ((len = ifis.read(buffer)) != -1) {
            for (int i = 0; i < len; i++) {
                serializedData.add(buffer[i] & 0xFF);
            }
        }

        data = serializedData.toArray(new Integer[serializedData.size()]);
    } finally {
        if (ifis != null) ifis.close();
        if (fis != null) fis.close();
    }

    return data;
}

/**
 * Write a file.
 */
private static void writeFile(String path, byte[] bytes) throws IOException {
    OutputStream os = null;
    try {
        os = new FileOutputStream(path);
        os.write(bytes);
    } finally {
        if (os != null) os.close();
    }
}

/**
 * Delete a file.
 */
private static void deleteFile(String path) {
    File file = new File(path);
    if (file.exists()) {
        file.delete();
    }
}

/**
 * When there is no directory, create a directory.
 */
private static void makeDirectory(String dirPath) {
    File dir = new File(dirPath);
    if (!dir.exists()) {
        dir.mkdir();
    }
}

private static class TimeoutProcessKiller extends TimerTask {
    private Process p;

    public TimeoutProcessKiller(Process p) {
        this.p = p;
    }
}

```

```
        }

        @Override
        public void run() {
            p.destroy();
        }
    }
}
```

See also

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