

파일업로드

프로젝트명 : B10aFileUpload

준비사항

- 의존설정 : Spring Web, Lombok
- JSP 사용을 위한 설정을 한다.
- Refresh Gradle Project 를 눌러 적용한다.

싱글 파일 업로드

프로퍼티 : /B11FileUpload/src/main/resources/application.properties

```
15 spring.servlet.multipart.enabled=true
16 # default : 1M
17 spring.servlet.multipart.max-file-size=2MB
18 # default : 10M
19 spring.servlet.multipart.max-request-size=20MB
```

뷰 : /B11FileUpload/src/main/webapp/WEB-INF/views/home.jsp

```
9<body>
10     <h2>스프링 부트 프로젝트</h2>
11     <ul>
12         <li><a href="/">루트</a></li>
13     </ul>
14
15     <h2>파일업로드</h2>
16     <ul>
17         <li><a href="/fileUpload.do">파일업로드 (싱글파일)</a></li>
18         <li><a href="/multiFileUpload.do">파일업로드 (멀티파일)</a></li>
19     </ul>
20 </body>
21 </html>
```

컨트롤러 : /B11FileUpload/src/main/java/com/edu/springboot/MainController.java

```
30@RequestMapping("/")
31public String home() {
32    return "home";
33}
34
35
36@GetMapping("/fileUpload.do")
37public String fileUpload(){
38    return "fileUpload";
39}
```

뷰 : /B11FileUpload/src/main/webapp/WEB-INF/views/fileUpload.jsp

```
9<script>
10    function validateForm(form) {
11        if (form.title.value == "") {
12            alert("제목을 입력하세요.");
13            form.title.focus();
14            return false;
15        }
16        if (form.ofile.value == "") {
17            alert("첨부파일은 필수 입력입니다.");
18            return false;
19        }
20    }
21</script>
22<body>
23    <h2>파일업로드</h2>
24    <form name="fileForm" method="post" enctype="multipart/form-data"
25        action="uploadProcess.do" onsubmit="return validateForm(this);">
26        제목 : <input type="text" name="title" /><br />
27        카테고리(선택사항) :
28        <input type="checkbox" name="cate" value="사진" checked />사진
29        <input type="checkbox" name="cate" value="과제" />과제
30        <input type="checkbox" name="cate" value="워드" />워드
31        <input type="checkbox" name="cate" value="음원" />음원 <br />
32        첨부파일 : <input type="file" name="ofile" /> <br />
33        <input type="submit" value="전송하기" />
34    </form>
35</body>
36</html>
```

여기까지 작성하세요.

유틸리티 : /B11FileUpload/src/main/java/Utils/MyFunctions.java

```
1 package utils;
2
3 import java.io.File;
4
5
6 public class MyFunctions {
7
8     public static String getUuid(){
9         String uuid = UUID.randomUUID().toString();
10        uuid = uuid.replaceAll("-", "");
11        System.out.println("생성된UUID:" + uuid);
12        return uuid;
13    }
14
15    public static String renameFile(String sDirectory,
16        String fileName) {
17
18        String ext = fileName.substring(fileName.lastIndexOf("."));
19        String now = getUuid();
20        String newFileName = now + ext;
21
22        File oldFile =
23            new File(sDirectory + File.separator + fileName);
24        File newFile =
25            new File(sDirectory + File.separator + newFileName);
26        oldFile.renameTo(newFile);
27        return newFileName;
28    }
29 }
30
```

컨트롤러 : /B11FileUpload/src/main/java/com/edu/springboot/MainController.java

```
42 @PostMapping("/uploadProcess.do")
43 public String uploadProcess(HttpServletRequest req, Model model){
44     try {
45         String uploadDir = ResourceUtils
46             .getFile("classpath:static/uploads/").toPath().toString();
47         System.out.println("물리적경로:" + uploadDir);
48
49         Part part = req.getPart("ofile");
50         String partHeader = part.getHeader("content-disposition");
51         System.out.println("partHeader=" + partHeader);
52         String[] phArr = partHeader.split("filename=");
53         String originalFileName = phArr[1].trim().replace("\\", "");
54         if (!originalFileName.isEmpty()) {
55             part.write(uploadDir + File.separator + originalFileName);
56         }
57     }
58 }
```

```

63         String savedFileName =
64             MyFunctions.renameFile(uploadDir, originalFileName);
65
66         model.addAttribute("originalFileName", originalFileName);
67         model.addAttribute("savedFileName", savedFileName);
68         model.addAttribute("title", req.getParameter("title"));
69         model.addAttribute("cate", req.getParameterValues("cate"));
70     }
71     catch (Exception e) {
72         System.out.println("업로드 실패");
73     }
74
75     return "fileUploadOk";
76 }

```

뷰 : /B11FileUpload/src/main/webapp/WEB-INF/views/fileUploadOk.jsp

```

1  <%@ page language="java" contentType="text/html; charset=UTF-8"
2      pageEncoding="UTF-8"%>
3  <%@ taglib prefix="c" uri="jakarta.tags.core"%>
4  <!DOCTYPE html>
5  <html>
6  <head>
7  <meta charset="UTF-8">
8  <title>FileUpload</title>
9  </head>
10 <body>
11     <h2>파일업로드 성공</h2>
12     업로드 한 파일명 : ${originalFileName } <br>
13     저장된 파일명 : ${savedFileName } <br>
14      <br>
15     제목 : ${title } <br>
16     카테고리 :
17     <c:forEach items="${cate }" var="row" varStatus="status">
18         ${row }
19         <c:if test="${status.last eq false }">,</c:if>
20     </c:forEach>
21 </body>
22 </html>

```

여기까지 작성하세요.

멀티 파일 업로드

컨트롤러 : /B11FileUpload/src/main/java/com/edu/springboot/MainController.java

```
79 @GetMapping("/multiFileUpload.do")
80 public String multiFileUpload(){
81     return "multiFileUpload";
82 }
```

뷰 : /B11FileUpload/src/main/webapp/WEB-INF/views/multiFileUpload.jsp

```
22 <body>
23     <h2>멀티파일업로드</h2>
24     <form name="fileForm" method="post" enctype="multipart/form-data"
25         action="multiUploadProcess.do" onsubmit="return validateForm(this);">
26         제목 : <input type="text" name="title" /><br />
27         카테고리(선택사항) :
28             <input type="checkbox" name="cate" value="사진" checked />사진
29             <input type="checkbox" name="cate" value="과제" />과제
30             <input type="checkbox" name="cate" value="워드" />워드
31             <input type="checkbox" name="cate" value="음원" />음원 <br />
32         첨부파일 : <input type="file" name="ofile" multiple /> <br />
33         <input type="submit" value="전송하기" />
34     </form>
35 </body>
36 </html>
```

컨트롤러 : /B11FileUpload/src/main/java/com/edu/springboot/MainController.java

```
80 @PostMapping("/multiUploadProcess.do")
81 public String multiUploadProcess(HttpServletRequest req, Model model){
82     try {
83         String uploadDir = ResourceUtils
84             .getFile("classpath:static/uploads/").toPath().toString();
85         System.out.println("물리적경로:"+uploadDir);
86
87         Map<String, String> saveFileMaps = new HashMap<>();
88
89         Collection<Part> parts = req.getParts();
90         for(Part part : parts) {
91             if(!part.getName().equals("ofile"))
92                 continue;
93
94             String partHeader = part.getHeader("content-disposition");
95             System.out.println("partHeader="+ partHeader);
96             String[] phArr = partHeader.split("filename=");
97             String originalFileName = phArr[1].trim().replace("\\", "");
98             if (!originalFileName.isEmpty()) {
99                 part.write(uploadDir+ File.separator +originalFileName);
100             }
101             String savedFileName = MyFunctions.renameFile(uploadDir,
102                 originalFileName);
103         }
104     }
```

```

03
04         saveFileMaps.put(originalFileName, savedFileName);
05     }
06     model.addAttribute("saveFileMaps", saveFileMaps);
07     model.addAttribute("title", req.getParameter("title"));
08     model.addAttribute("cate", req.getParameterValues("cate"));
09 }
10 catch (Exception e) {
11     System.out.println("업로드 실패");
12 }
13
14     return "multiFileUploadOk";
15 }
16 }

```

뷰 : /B11FileUpload/src/main/webapp/WEB-INF/views/multiFileUploadOk.jsp

```

1 <%@ page language="java" contentType="text/html; charset=UTF-8"
2     pageEncoding="UTF-8"%>
3 <%@ taglib prefix="c" uri="jakarta.tags.core"%>
4 <!DOCTYPE html>
5 <html>
6 <head>
7 <meta charset="UTF-8">
8 <title>MultiUpload Result</title>
9 <style>
10 img{max-width: 300px;}
11 </style>
12 </head>
13 <body>
14     <h2>멀티 파일업로드 성공</h2>
15     <c:forEach items="${saveFileMaps}" var="row" varStatus="status">
16         업로드 한 파일명${status.count} : ${row.key } <br>
17         저장된 파일명${status.count} : ${row.value } <br>
18          <br>
19     </c:forEach>
20
21     제목 : ${title } <br>
22     카테고리 :
23     <c:forEach items="${cate}" var="row" varStatus="status">
24         ${row }
25         <c:if test="${status.last eq false }">,</c:if>
26     </c:forEach>
27 </body>
28 </html>

```