

**第4周周实训报告**

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| **课程名称：** | **软件综合开发实训课** |
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| **学生专业：** | **软件工程** |
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**华南理工大学软件学院**

**2025年05月**

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| **本周实训成绩评定：** **分** |

**第4周周实训报告**

1. **周实训任务描述**

**1.修改附件接口，删除上传部分，重新实现附件的存储和下载功能**

1. **采用的软硬件环境**

**软件：IDEA，mysql**

**硬件：开发机**

1. **主要步骤和结果展示**

**1.关键接口实现**

**(1)根据字节流和类型恢复文件**

**public Attachment saveAttachment(Long emailId, byte[] fileBytes, String fileName, String fileType) {**

**// 生成唯一文件名和存储路径**

**String uniqueFileName = UUID.randomUUID() + "\_" + fileName;**

**Path filePath = Paths.get(storageDir, uniqueFileName);**

**// 2. 确保目录存在并写入文件**

**try {**

**Files.createDirectories(filePath.getParent());**

**Files.write(filePath, fileBytes);**

**} catch (IOException e) {**

**throw new RuntimeException("Failed to save attachment", e);**

**}**

**// 3. 保存记录到数据库**

**Attachment attachment = new Attachment();**

**attachment.setEmailId(emailId);**

**attachment.setFileName(fileName);**

**attachment.setFilePath(filePath.toString());**

**attachment.setFileType(fileType);**

**attachment.setFileSize((long) fileBytes.length);**

**attachmentMapper.insert(attachment);**

**return attachment;**

**}**

1. **下载**

**@GetMapping("/{attachmentId}")**

**public ResultVo getAttachmentInfo(@PathVariable Long attachmentId) {**

**return attachmentService.getAttachmentById(attachmentId);**

**}**

**public ResponseEntity<byte[]> downloadAttachment(@PathVariable Long attachmentId) {**

**ResultVo<Attachment> resultVo = attachmentService.getAttachmentById(attachmentId);**

**Attachment attachment = resultVo.getData();**

**byte[] fileBytes;**

**try {**

**fileBytes = Files.readAllBytes(Paths.get(attachment.getFilePath()));**

**} catch (IOException e) {**

**throw new RuntimeException("File not found", e);**

**}**

**// 使用 ContentDisposition 工具类处理文件名编码**

**ContentDisposition contentDisposition = ContentDisposition.builder("attachment")**

**.filename(attachment.getFileName(), StandardCharsets.UTF\_8)**

**.build();**

**return ResponseEntity.ok()**

**.header("Content-Type", attachment.getFileType())**

**.header("Content-Disposition", contentDisposition.toString())**

**.body(fileBytes);**

**}**