230306 Spring 파일 업로드

File Upload

- 1. pom.xml 에 Maven Repository에서 검색 후 의존성 추가
 - a. commons-fileupload
 - b. commons-io

```
132
133
                <!-- https://mvnrepository.com/artifact/commons
1349
        <dependency>
            <groupId>commons-fileupload
135
            <artifactId>commons-fileupload</artifactId>
136
            <version>1.5</version>
137
138
        </dependency>
139
140
            <!-- https://mvnrepository.com/artifact/commons-io,
1419
        <dependency>
142
            <groupId>commons-io
143
            <artifactId>commons-io</artifactId>
            <version>2.11.0
144
145
        </dependency>
146
```

2. servlet-context.xml

CarController

```
package com.carshop.controller;
import java.io.File;
import java.io.IOException;
import java.util.List;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.ui.Model;
import org.springframework.web.bind.annotation.GetMapping;
import org.springframework.web.bind.annotation.ModelAttribute;
import org.springframework.web.bind.annotation.PathVariable;
import org.springframework.web.bind.annotation.PostMapping;
import org.springframework.web.bind.annotation.RequestMapping;
import org.springframework.web.bind.annotation.RequestParam;
import org.springframework.web.multipart.MultipartFile;
@Controller
public class CarController {
  @Autowired
  private CarService carService;
  @RequestMapping("/cars")
  public String CarList(Model model) {
    List<CarDTO> list = carService.getAllCarList();
   model.addAttribute("carList", list);
   return "cars";
 }
  @GetMapping("/{ccate}")
  \verb|public String requestCarsByCategory(@PathVariable("ccate")String carCategory, Model|\\
 model) {
    List<CarDTO> carsByCategory = carService.getCarListByCategory(carCategory);
    model.addAttribute("carList", carsByCategory);
   return "cars";
 }
  @GetMapping("/car")
  public String requestCarById(@RequestParam("id") String carId, Model model) {
    CarDTO carById = carService.getCarById(carId);
    model.addAttribute("car", carById);
    return "car";
  }
  @GetMapping("/admin/add")
  public String requestAddCarForm(@ModelAttribute("car") CarDTO car) {
   return "addCar";
  }
  @PostMapping("/admin/add")
  public String submitAddNewCar(@ModelAttribute("car") CarDTO car) {
```

```
MultipartFile carimage = car.getCarimage();
    String saveName = carimage.getOriginalFilename();
    File saveFile = new File("C:\\upload", saveName);
    if(carimage != null && !carimage.isEmpty()) {
       carimage.transferTo(saveFile);
     } catch (Exception e) {
       throw new RuntimeException("차량 이미지 업로드 실패"); }
   carService.setNewCar(car);
   return "redirect:/cars";
 }
  @ModelAttribute
  public void addAttributes(Model model) {
   model.addAttribute("addTitle", "신규 차량 등록");
 }
  @GetMapping("/login")
  public String loginMethod() {
   return "login";
 }
  @GetMapping("/loginfailed")
  public String loginfailedMethod() {
   return "login";
 }
  @GetMapping("/logout")
  public String logoutMethod() {
    return "login";
}
```

addCar

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<%@ taglib uri="http://www.springframework.org/tags/form" prefix="form" %>
<!DOCTYPE html>
<html>
```

```
<head>
<meta charset="UTF-8">
<title>자동차 등록</title>
</head>
<body>
<%@ include file="header.jsp" %>
  <div class="alert alert-dark" role="alert">
    <div class="container"><h1>차량 등록</h1></div>
  </div>
<div class="container">
  <div class="row" align="center">
  <form:form modelAttribute="car"</pre>
        action="./add?${_csrf.parameterName }=${_csrf.token }"
        method="post"
       class="form-horizontal"
       enctype="multipart/form-data">
  <fieldset>
  <legend>${addTitle }</legend>
  자동차 ID : <form:input path="cid" class="form-control"/>
  자동차 이름 : <form:input path="cname" class="form-control"/>
  자동차 가격 : <form:input path="cprice" class="form-control"/>
  자동차 카테고리: <form:input path="ccate" class="form-control"/>
  자동차 소개 : <form:textarea path="cdesc" cols="50" rows="2" class="form-control"/>
  자동차 사진 : <form:input path="carimage" type="file" class="form-control"/>
  <input type="submit" class="btn btn-primary" value="등록"/>
  </fieldset>
  </form:form>
  </div>
</div>
<%@ include file="footer.jsp" %>
</body>
</html>
```

cars.jsp

```
<%@ page language="java" contentType="text/html; charset=UTF-8"
    pageEncoding="UTF-8"%>
<%@ taglib uri="http://java.sun.com/jsp/jstl/core" prefix="c" %>
<%@ taglib uri="http://java.sun.com/jsp/jstl/functions" prefix="fn" %>
<!DOCTYPE html>
<html>
<head>
<meta charset="UTF-8">
<title>Car List</title>
```

```
</head>
<body>
<%@ include file="header.jsp" %>
 <div class="alert alert-dark" role="alert">
   <div class="container"><h1>차량 보기 권두현</h1></div>
  </div>
<div class="container">
  <div class="row" align="center">
 <c:forEach items="${carList}" var="car">
   <div class="col-md-4">
   <img src="<c:url value='C:\\upload\\${car.getCarimage().getOriginalFilename()}'/</pre>
>">
     <h3>${car.cid}</h3>
     ${car.cname }
     ${car.cprice} 만원
     <a href="<c:url value='/car?id=${car.cid }'/>"
     class="btn btn-Secondary" role="button">상세보기</a>
   </div>
 </c:forEach>
 </div>
</div>
<%@ include file="footer.jsp" %>
</body>
</html>
```

CarDTO

```
package com.carshop.controller;
import org.springframework.web.multipart.MultipartFile;

public class CarDTO {

  private String cid;  //차 아이디 private String cname; //차 이름 private String cprice;  //차 가격 private String ccate;  //차 카테고리 private String ccate;  //차 설명 private MultipartFile carimage;

  public String getCid() {
    return cid;  }

  public void setCid(String cid) {
    this.cid = cid;  }

  public String getCname() {
```

```
return cname;
  public void setCname(String cname) {
   this.cname = cname;
  public String getCprice() {
   return cprice;
  public void setCprice(String cprice) {
   this.cprice = cprice;
  public String getCcate() {
   return ccate;
  public void setCcate(String ccate) {
   this.ccate = ccate;
  public String getCdesc() {
   return cdesc;
  public void setCdesc(String cdesc) {
    this.cdesc = cdesc;
  public MultipartFile getCarimage() {
   return carimage;
  public void setCarimage(MultipartFile carimage) {
    this.carimage = carimage;
  public CarDTO(String cid, String cname, String cprice, String ccate, String cdesc, M
ultipartFile carimage) {
   this.cid = cid;
    this.cname = cname;
   this.cprice = cprice;
   this.ccate = ccate;
   this.cdesc = cdesc;
   this.carimage = carimage;
  public CarDTO(String cid, String cname, String cprice, String ccate, String cdesc) {
    this.cid = cid;
    this.cname = cname;
   this.cprice = cprice;
   this.ccate = ccate;
   this.cdesc = cdesc;
 }
 public CarDTO() {}
}
```

Exception

Validation