# ssm练习第二天

第一章: ssm框架整合

第一节:数据库与表结构

产品表信息描述

序号	字段名称	字段类型	字段描述
1	id	number(9)	无意义, 主键
2	productNum	varchar(50)	产品编号
3	productName	varchar(50)	产品名称 (路线名称)
4	cityName	varchar(50)	出发城市
5	DepartureTime	timestamp	出发时间
6	productPrice	nubmer(8,2)	产品价格
7	productDesc	varchar(500)	产品描述
8	productStatus	number(2)	状态(0 关闭 1 开启)

#### 创建表sql

```
创建表空间语句
create tablespace ssm datafile 'c:\ssm.dbf' size 100m autoextend on next 10m;
创建用户授予权限
create user ssm identified by ssm default tablespace ssm;
grant dba to ssm;
创建序列语句
create sequence common_sequence;
创建表的sql语句
CREATE TABLE product(
 id number(9) PRIMARY KEY,
 productNum VARCHAR2(50) ,
 productName VARCHAR2(50),
 cityName VARCHAR2(50),
 DepartureTime TIMESTAMP(0),
 productPrice NUMBER(8,2),
 productDesc VARCHAR2(500),
 productStatus number(2)
插入数据语句
insert into PRODUCT
values (common_sequence.nextval, 'itcast-002', '北京三日游', '北京', to_timestamp('10-
```

```
10-2018 10:10:00.000000', 'dd-mm-yyyy hh24:mi:ss.ff'), 1200, '不错的旅行', 1); insert into PRODUCT values (common_sequence.nextval, 'itcast-003', '上海五日游', '上海', to_timestamp('25-04-2018 14:30:00.000000', 'dd-mm-yyyy hh24:mi:ss.ff'), 1800, '魔都我来了', 0); insert into PRODUCT values (common_sequence.nextval, 'itcast-001', '北京三日游', '北京', to_timestamp('10-10-2018 10:10:00.000000', 'dd-mm-yyyy hh24:mi:ss.ff'), 1200, '不错的旅行', 1);
```

### 第二节: 创建maven工程

- 1. 创建maven的工程
  - 1. 创建ssm\_parent父工程(打包方式选择pom,必须的)
  - 2. 创建ssm\_web子模块 (打包方式是war包)
  - 3. 创建ssm\_service子模块(打包方式是jar包)
  - 4. 创建ssm\_dao子模块(打包方式是jar包)
  - 5. 创建ssm\_domain子模块(打包方式是jar包)
  - 6. 创建ssm\_utils子模块(打包方式是jar包)
  - 7. web依赖于service, service依赖于dao, dao依赖于domain, domain依赖utils
  - 8. 在ssm\_parent的pom.xml文件中引入坐标依赖

```
cproperties>
        <spring.version>5.0.2.RELEASE</spring.version>
        <slf4j.version>1.6.6</slf4j.version>
        <log4j.version>1.2.12</log4j.version>
        <mybatis.version>3.4.5</mybatis.version>
        <spring.security.version>5.0.1.RELEASE</spring.security.version>
    </properties>
    <dependencies>
        <!-- spring -->
        <dependency>
             <groupId>org.aspectj</groupId>
             <artifactId>aspectjweaver</artifactId>
             <version>1.6.8
        </dependency>
        <dependency>
             <groupId>org.springframework</groupId>
             <artifactId>spring-aop</artifactId>
             <version>${spring.version}</version>
        </dependency>
        <dependency>
             <groupId>org.springframework</groupId>
             <artifactId>spring-context</artifactId>
             <version>${spring.version}</version>
        </dependency>
        <dependency>
```

```
<groupId>org.springframework
    <artifactId>spring-context-support</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework
    <artifactId>spring-web</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-orm</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-beans</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-core</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-test</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-webmvc</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-tx</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>junit
    <artifactId>junit</artifactId>
    <version>4.12
    <scope>test</scope>
</dependency>
<dependency>
    <groupId>ojdbc
    <artifactId>ojdbc</artifactId>
    <version>14</version>
</dependency>
<dependency>
    <groupId>javax.servlet
    <artifactId>javax.servlet-api</artifactId>
```

```
<version>3.1.0
    <scope>provided</scope>
</dependency>
<dependency>
    <groupId>javax.servlet.jsp</groupId>
    <artifactId>jsp-api</artifactId>
    <version>2.0</version>
     <scope>provided</scope>
</dependency>
<dependency>
    <groupId>jstl</groupId>
    <artifactId>jstl</artifactId>
     <version>1.2</version>
</dependency>
<!-- log start -->
<dependency>
    <groupId>log4j
    <artifactId>log4j</artifactId>
    <version>${log4j.version}</version>
</dependency>
<dependency>
    <groupId>org.slf4j</groupId>
    <artifactId>slf4j-api</artifactId>
    <version>${slf4j.version}</version>
</dependency>
<dependency>
    <groupId>org.slf4j</groupId>
    <artifactId>slf4j-log4j12</artifactId>
    <version>${slf4j.version}</version>
</dependency>
<!-- log end -->
<dependency>
    <groupId>org.mybatis
    <artifactId>mybatis</artifactId>
     <version>${mybatis.version}</version>
</dependency>
<dependency>
    <groupId>org.mybatis
    <artifactId>mybatis-spring</artifactId>
     <version>1.3.0
</dependency>
<dependency>
   <groupId>com.alibaba/groupId>
   <artifactId>druid</artifactId>
   <version>1.0.9</version>
</dependency>
<dependency>
    <groupId>com.github.pagehelper</groupId>
    <artifactId>pagehelper</artifactId>
    <version>5.1.2
</dependency>
<dependency>
```

```
<groupId>org.springframework.security</groupId>
        <artifactId>spring-security-web</artifactId>
        <version>${spring.security.version}</version>
    </dependency>
    <dependency>
        <groupId>org.springframework.security</groupId>
        <artifactId>spring-security-config</artifactId>
        <version>${spring.security.version}</version>
    </dependency>
    <dependency>
        <groupId>org.springframework.security</groupId>
        <artifactId>spring-security-core</artifactId>
        <version>${spring.security.version}</version>
    </dependency>
    <dependency>
        <groupId>org.springframework.security</groupId>
        <artifactId>spring-security-taglibs</artifactId>
        <version>${spring.security.version}</version>
    </dependency>
</dependencies>
<build>
    <pluginManagement>
        <plugins>
             <plugin>
                 <groupId>org.apache.maven.plugins
                 <artifactId>maven-compiler-plugin</artifactId>
                 <version>3.2</version>
                 <configuration>
                      <source>1.8</source>
                      <target>1.8</target>
                      <encoding>UTF-8</encoding>
                      <showWarnings>true</showWarnings>
                 </configuration>
             </plugin>
        </plugins>
    </pluginManagement>
</build>
```

- 9. 在ssm\_web项目中导入静态页面
- 10. 部署ssm\_web的项目,只要把ssm\_web项目加入到tomcat服务器中即可

### 第三节:编写domain、dao和service

1. domain

```
public class Product {
   private Long id;
   private String productNum;
   private String productName;

private String cityName;
```

```
private Date departureTime;
private String departureTimeStr;
private double productPrice;
private String productDesc;
private Integer productStatus;
private String productStatusStr;

//省略getter/setter方法
}
```

2. dao

```
public interface ProductDao {
    List<Product> findAll() throws Exception;
    void save(Product product) throws Exception;
}
```

3. service

```
public interface ProductService {
    List<Product> findAll() throws Exception;
    void save(Product product) throws Exception;
}
```

### 第四节:编写Spring的配置文件

1. 在ssm\_web项目中创建applicationContext.xml的配置文件,编写具体的配置信息。

```
<?xml version="1.0" encoding="UTF-8"?>
<beans xmlns="http://www.springframework.org/schema/beans"
    xmlns:xsi="http://www.springframework.org/schema/context"
    xmlns:context="http://www.springframework.org/schema/context"
    xmlns:aop="http://www.springframework.org/schema/aop"
    xmlns:tx="http://www.springframework.org/schema/tx"
    xsi:schemaLocation="http://www.springframework.org/schema/beans
    http://www.springframework.org/schema/beans.xsd
    http://www.springframework.org/schema/context
    http://www.springframework.org/schema/context/spring-context.xsd
    http://www.springframework.org/schema/aop
    http://www.springframework.org/schema/aop/spring-aop.xsd
    http://www.springframework.org/schema/tx
    http://www.springframework.org/schema/tx
    http://www.springframework.org/schema/tx</pre>
http://www.springframework.org/schema/tx/spring-tx.xsd">
```

### 第五节:编写SpringMVC框架的配置文件

1. 在web.xml中配置DispatcherServlet前端控制器

2. 在web.xml中配置DispatcherServlet过滤器解决中文乱码

3. 创建springmvc.xml的配置文件,编写配置文件

```
<?xml version="1.0" encoding="UTF-8"?>
   <beans xmlns="http://www.springframework.org/schema/beans"</pre>
   xmlns:mvc="http://www.springframework.org/schema/mvc"
xmlns:context="http://www.springframework.org/schema/context"
   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
   xsi:schemaLocation="
      http://www.springframework.org/schema/beans
      http://www.springframework.org/schema/beans/spring-beans.xsd
      http://www.springframework.org/schema/mvc
      http://www.springframework.org/schema/mvc/spring-mvc.xsd
      http://www.springframework.org/schema/context
      http://www.springframework.org/schema/context/spring-context.xsd">
    <!-- 扫描controller的注解, 别的不扫描 -->
    <context:component-scan base-package="cn.itcast.controller">
    </context:component-scan>
    <!-- 配置视图解析器 -->
    <bean id="viewResolver"</pre>
class="org.springframework.web.servlet.view.InternalResourceViewResolver">
        <!-- JSP文件所在的目录 -->
        cproperty name="prefix" value="/pages/" />
        <!-- 文件的后缀名 -->
        cproperty name="suffix" value=".jsp" />
    </bean>
    <!-- 设置静态资源不过滤 -->
    <mvc:resources location="/css/" mapping="/css/**" />
    <mvc:resources location="/img/" mapping="/img/**" />
    <mvc:resources location="/js/" mapping="/js/**" />
    <mvc:resources location="/plugins/" mapping="/plugins/**" />
    <!-- 开启对SpringMVC注解的支持 -->
    <mvc:annotation-driven />
   </beans>
```

### 第六节: Spring整合SpringMVC的框架

1. 在项目启动的时候,就去加载applicationContext.xml的配置文件,在web.xml中配置 ContextLoaderListener监听器(该监听器只能加载WEB-INF目录下的applicationContext.xml的配置文件)。

2. 在controller中注入service对象,调用service对象的方法进行测试

### 第七节: Spring整合MyBatis框架

1. 目的: 把SqlMapConfig.xml配置文件中的内容配置到applicationContext.xml配置文件中

- 2. 在AccountDao接口中添加@Repository注解
- 3. 在service中注入dao对象,进行测试

### 第八节: 配置Spring声明式事务管理

# 第二章:产品模块功能

第一节: 查询所有的产品

```
@Controller
@RequestMapping("/product")
public class ProductController {
@Autowired
private ProductService productService;
@RequestMapping("/findAllProduct")
    public String findAllProduct(Model model){
        model.addAttribute("productList",productService.findAllProduct());
        return "product/productList";
   }
}
@Service
public class ProductServiceImpl implements ProductService {
@Autowired
private ProductDao productDao;
public List<Product> findAll() {
    return productDao.findAll();
}
}
@Repository
public interface ProductDao {
```

```
@Select("select * from product")
public List<Product> findAll();
}
```

```
<! --数据列表-->
<table id="dataList"
class="table table-bordered table-striped table-hover dataTable">
<thead>
<input</pre>
id="selall" type="checkbox" class="icheckbox_square-blue">
产品编号
产品名称
出发城市
出发日期
价格
描述
操作
</thead>
<c:forEach items="${ plist }" var="p">
<input name="ids" type="checkbox">
${ p.productNum }
${ p.productName }
${ p.cityName }
${ p.departureTime }
${ p.productPrice }
${ p.productDesc }
<button type="button" class="btn bg-olive btn-xs"</pre>
onclick='location.href="all-order-manage-edit.html"'>订单</button>
<button type="button" class="btn bg-olive btn-xs"</pre>
onclick='location.href="all-order-manage-edit.html"'>查看</button>
</c:forEach>
```

### 第二节:解决日期和状态字段显示的问题

- 1. JSP页面显示的日期为默认的英文日期,转换成字符串格式有2种方式
  - 1. 使用fmt标签进行转换

```
    1. <%@ taglib prefix="fmt" uri="http://java.sun.com/jsp/jstl/fmt" %>
    2. undefined在JavaBean中添加属性, 重写该属性的get方法进行转换
```

```
private String departureTimeStr;
 * 重新get方法,返回字符串类型的时间
 * @return
 */
public String getDepartureTimeStr() {
    if(departureTime == null) {
        return "";
    }else {
        return DateUtils.dateToStr(departureTime, "yyyy-MM-dd HH:mm:ss");
    }
}
public class DateUtils {
    /**
    * 把日期转换成字符串
     * @param date
    * @return
   public static String dateToStr(Date date,String pattern) {
       SimpleDateFormat sdf = new SimpleDateFormat(pattern);
       return sdf.format(date);
   }
}
```

#### 2. 处理状态的问题

1. 在JSP页面进行判断

```
<c:if test="${ p.productStatus == 0 }">关闭</c:if> <c:if test="${ p.productStatus == 1 }">开启</c:if>
```

2. 在JavaBean中添加属性, 重写get方法

```
private String productStatusStr;
public String getProductStatusStr() {
    return productStatus == 0?"关闭":"开启";
}
```

### 第三节:保存产品

1. 跳转到新增的页面

```
/**

* 跳转到新增页面

* @return

*/
@RequestMapping("/initAdd")
public String initAdd() {
    return "product-add";
}
```

#### 2. 新增产品

```
/**
     * 保存
     * @return
     */
    @RequestMapping("/save")
    public String save(Product product) {
        productService.save(product);
        return "redirect:/product/findAll";
    }
    @Service
public class ProductServiceImpl implements ProductService {
    @Autowired
    private ProductDao productDao;
    public List<Product> findAll() {
        return productDao.findAll();
    public void save(Product product) {
        productDao.save(product);
    }
}
@Repository
public interface ProductDao {
    @Select("select * from product")
```

```
public List<Product> findAll();

@Insert("insert into product

(productNum,productName,cityName,departureTime,productPrice,productDesc,productStatus)

values (#{productNum},#{productName},#{cityName},#{departureTime},#{productPrice},#

{productDesc},#{productStatus})")

public void save(Product product);

}
```

- 3. 在进行数据绑定的时候,日期出现了异常,该格式的日期不支持默认数据类型转换
  - 1. 自定义类型转换器 (比较麻烦,回去看第一天文档)
  - 2. 在departureTime属性上添加注解解决

```
@DateTimeFormat(pattern="yyyy-MM-dd HH:mm")
private Date departureTime;
```

3. 在Controller类中添加方法,进行类型转换

```
/**
 * 类型转换
 * @param dataBinder
 */
@InitBinder
public void initBinderDate(WebDataBinder dataBinder) {
    dataBinder.registerCustomEditor(Date.class, new PropertiesEditor() {
        // JSP页面传过来的数据
        public void setAsText(String text) throws IllegalArgumentException {
            // 把字符串转换成日期
            SimpleDateFormat sdf = new SimpleDateFormat("yyyy-MM-dd HH:mm");
            try {
                 Date date = sdf.parse(text);
                 // 设置值
                 super.setValue(date);
            } catch (ParseException e) {
                 e.printStackTrace();
            }
        }
    });
}
```

### 第四节:修改产品

1. 跳转到修改页面

```
/**

* 跳转到修改页面

* @return

*/
```

```
@RequestMapping("/initUpdate")
public ModelAndView initUpdate(Long id) {
    ModelAndView mv = new ModelAndView();
    // 查询
    Product product = productService.findById(id);
    mv.addObject("product", product);
    mv.setViewName("product-update");
    return mv;
}

public Product findById(Long id) {
    return productDao.findById(id);
}

@Select("select * from product where id = #{id}")
public Product findById(Long id);
```

#### 2. 修改代码

```
/**
     * 修改
     * @param product
     * @return
     */
    @RequestMapping("/update")
    public String update(Product product) {
        productService.update(product);
        return "redirect:/product/findAll";
    }
    public void update(Product product) {
        productDao.update(product);
    }
    @Update("update product set productNum = #{productNum}, productName=#
{productName},cityName=#{cityName},departureTime=#{departureTime},productPrice=#
{productPrice},productDesc=#{productDesc},productStatus=#{productStatus} where id = #{id}")
    public void update(Product product);
```

### 第五节: 删除产品

#### 1. 代码

```
<button type="button" class="btn bg-olive btn-xs" onclick='del(${p.id})'>删除</button>

// 删除
function del(id){
   if(confirm("确定删除吗?")){
      // 发送请求
   location.href = "${pageContext.request.contextPath}/product/delete?
```

```
id="+id;
            }
        }
    /**
     * 删除
     * @param id
     * @return
     */
    @RequestMapping("/delete")
    public String delete(Long id) {
        productService.delete(id);
        return "redirect:/product/findAll";
    public void delete(Long id) {
        productDao.delete(id);
    @Delete("delete from product where id = #{id}")
    public void delete(Long id);
```

## 第三章: 订单模块功能

### 第一节: 订单表与产品表的关系

- 1. 一个用户会产品一个订单,一个订单只能选择一个产品,因为是旅游产品。
- 2. 一个产品可以被多个订单所选择。
- 3. 订单表与产品表的关系是多对一
- 4. 订单表的SQL语句
- 5. 订单表信息描述 orders

序号	字段名称	字段类型	字段描述
1	id	number	主键
2	orderNum	varchar2(50)	订单编号 不为空 唯一
3	orderTime	timestamp	下单时间
4	peopleCount	number	出行人数
5	orderDesc	varchar2(500)	订单描述(其它信息)
6	рауТуре	number	支付方式(0支付宝 1 微信 2其它)
7	orderStatus	number	订单状态(0 未支付 1 已支付)
8	productId	number	产品id 外键

productId描述了订单与产品之间的关系。

创建表sql

```
CREATE TABLE orders(
   id NUMBER(9) PRIMARY KEY,
   orderNum VARCHAR2(20) NOT NULL UNIQUE,
   orderTime TIMESTAMP(0),
   peopleCount NUMBER,
   orderDesc VARCHAR2(500),
   payType NUMBER(2),
   orderStatus NUMBER(2),
   productId NUMBER(9),
   FOREIGN KEY (productId) REFERENCES product(id)
)
```

### 第二节: 搭建订单模块的环境

1. 编写Order的JavaBean

```
public class Order implements Serializable{
    private static final long serialVersionUID = 8153486211933088983L;

    private Long id;
    private String orderNum;
    private Date orderTime;
    private Integer peopleCount;
    private String orderDesc;
    private Integer payType;
    private Integer orderStatus;
    // 外键
```

```
// private Long productId;
private Product product;

// get和set
}
```

#### 2. 编写OrderDao

```
package cn.itcast.dao;
import org.springframework.stereotype.Repository;

@Repository
public interface OrderDao {
}
```

#### 3. 编写OrderService

```
package cn.itcast.service.impl;
import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Service;
import cn.itcast.dao.OrderDao;
import cn.itcast.service.OrderService;

@Service
public class OrderServiceImpl implements OrderService {
    @Autowired
    private OrderDao orderDao;
}
```

#### 4. 编写OrderController

```
package cn.itcast.web;

import org.springframework.beans.factory.annotation.Autowired;
import org.springframework.stereotype.Controller;
import org.springframework.web.bind.annotation.RequestMapping;
import cn.itcast.service.OrderService;
```

```
@Controller
@RequestMapping("/order")
public class OrderController {
    @Autowired
    private OrderService orderService;
}
```

### 第三节: 查询所有的订单

1. 具体的代码如下

```
@Controller
@RequestMapping("/order")
public class OrderController {
    @Autowired
    private OrderService orderService;
     * 查询所有
     * @return
     @RequestMapping("/findAllOrder")
    public String findAllOrder(Model model){
       model.addAttribute("orderList",orderService.findAllOrder());
    return "order/orderList";
    }
}
@Service
public class OrderServiceImpl implements OrderService {
    @Autowired
    private OrderDao orderDao;
    public List<Order> findAll() {
        return orderDao.findAll();
    }
}
```

}

\${ o.orderNum } \${ o.peopleCount } \${ o.orderDesc } 支付宝<u>/c:if</u> 微信<u>/c:if</u> 其他<u>/c:if</u> 未支付<u>/c:if</u> 已支付<u>/c:if</u> \${ o.product.productName } \${ o.product.productPrice }

<br/>
<br/>