

Day 1



- 1. Understand Spring MVC Architecture
- 2. Integrate Spring MVC with Hibernate
- 3. Spring Project Structure



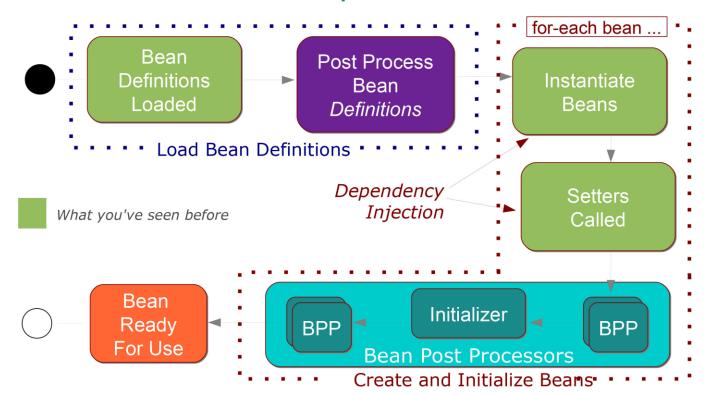
1. Spring MVC Architecture



Spring Bean Life Cycle



Bean Initialization Steps

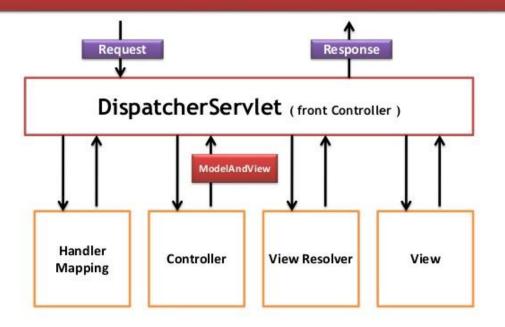




Spring MVC Architecture

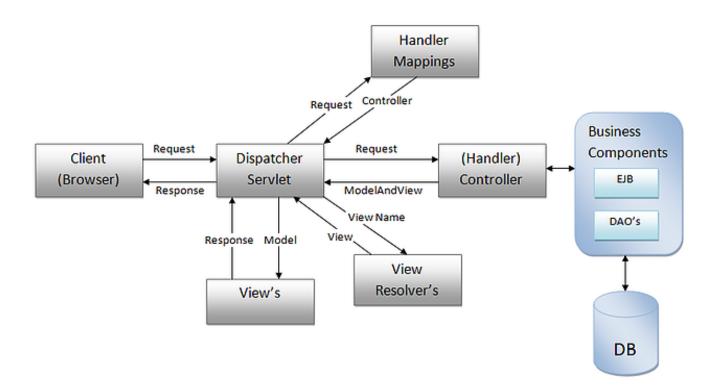


SPRING MVC FLOW



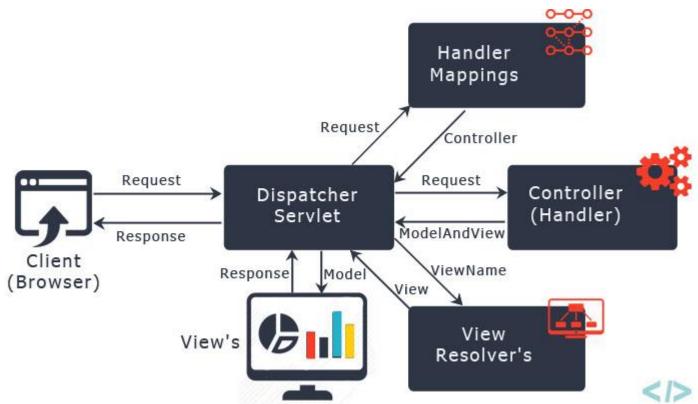








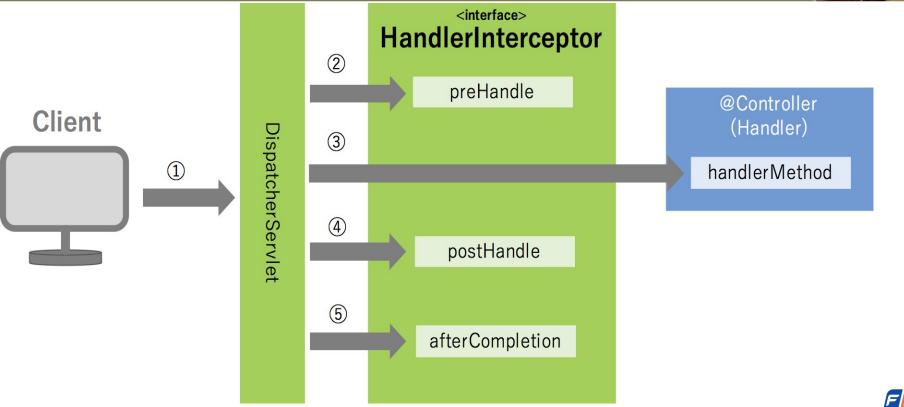






Interceptor

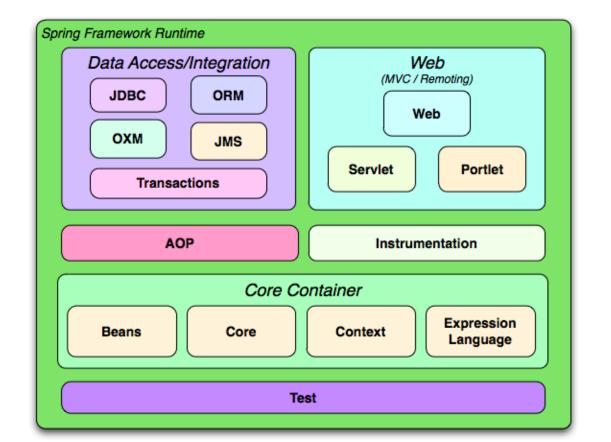






Spring Modules







Spring Modules



Spring AOP

Source-level Metadata AOP Infrastructure

Spring ORM

Hibernate, iBATIS and JDO Support

Spring DAO

Transaction Infrastructure JDBC and DAO Support

Spring Web

WebApplicationContext Multipart Resolver Web Utilities

Spring Context

ApplicationContext
UI Support
Validation
JNDI, EJB & Remoting Support
Mail

Spring MVC

Web Framework Web Views JSP, Velocity, Freemarker, PDF, Excel, XML/XSL

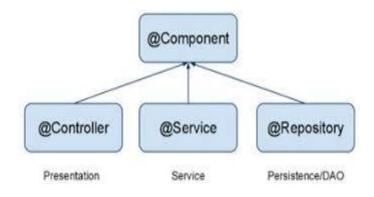
Spring Core

Supporting Utilities Bean Factory/Container



Spring Annotations







Spring MVC Annotations



Spring MVC Annotations

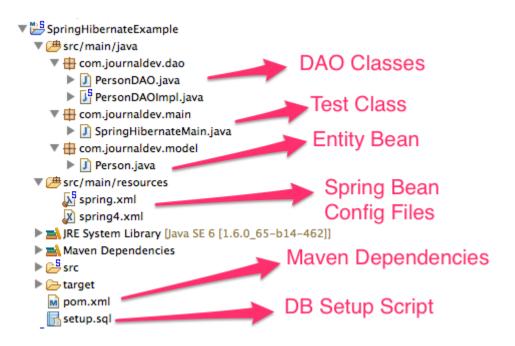
- @Controller class stereotype for controller classes so they can be found and mapped
- @SessionAttributes list model attributes to be stored in the session (command object)
- @RequestMapping class/method mapping to requests (mode, parameters, etc.)
- @RequestParam bind method params to request params
- @ModelAttribute bind method params or return values to model attributes
- @InitBinder method to setup binder for putting form submission into command obj



2. Integrate Spring with Hibernate

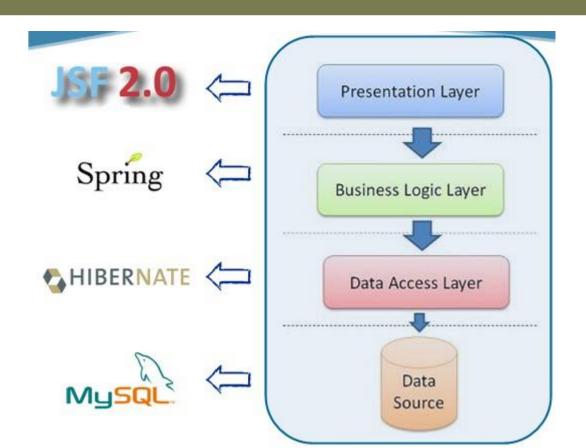














3. Spring project structure





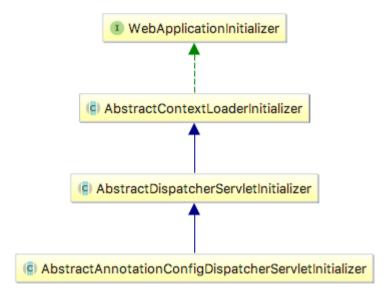
- ✓ №5 SpringMvcHibernateAnnotation
 - - > # com.fa.edu.springmvchibernate.config

 - > # com.fa.edu.springmvchibernate.dao
 - > # com.fa.edu.springmvchibernate.dao.impl
 - > # com.fa.edu.springmvchibernate.model
 - > # com.fa.edu.springmvchibernate.service
 - > 🌐 com.fa.edu.springmvchibernate.service.impl
 - - application.properties
 - > 🎏 src/test/java
 - JRE System Library [jre1.8.0_152]
 - > Maven Dependencies
 - ⇒ 🔂 src
 - > 🗁 target
 - pom.xml



WebApplicationInitializer







WebApplicationInitializer



```
package com.fa.edu.springmvchibernate.config;
import javax.servlet.ServletContext;
 public class WebInitializer implements WebApplicationInitializer {
     public void onStartup(ServletContext servletContext)
             throws ServletException {
         AnnotationConfigWebApplicationContext ctx = new AnnotationConfigWebApplicationContext();
         ctx.register(WebAppConfig.class);
         servletContext.addListener(new ContextLoaderListener(ctx));
         ctx.setServletContext(servletContext);
         Dynamic servlet = servletContext.addServlet("dispatcher", new DispatcherServlet(ctx));
         servlet.addMapping("/");
         servlet.setLoadOnStartup(1);
```

WebAppConfig



```
@Configuration
@ComponentScan("com.fa.edu.springmvchibernate")
@EnableWebMvc
@EnableTransactionManagement
@PropertySource("classpath:application.properties")
public class WebAppConfig {
    private static final String PROPERTY_NAME_DATABASE_DRIVER = "db.driver";
    private static final String PROPERTY NAME DATABASE PASSWORD = "db.password";
    private static final String PROPERTY_NAME_DATABASE_URL = "db.url";
    private static final String PROPERTY NAME DATABASE USERNAME = "db.username";
    private static final String PROPERTY_NAME_HIBERNATE_DIALECT = "hibernate.dialect";
    private static final String PROPERTY_NAME_HIBERNATE_SHOW_SQL = "hibernate.show sql";
    private static final String PROPERTY NAME ENTITYMANAGER PACKAGES TO SCAN = "entitymanager.packages.to.scan";
    @Resource
    private Environment env;
    public DataSource dataSource() {
    public LocalSessionFactoryBean sessionFactory() {
    private Properties hibProperties() {[]
    public HibernateTransactionManager transactionManager() {
    public UrlBasedViewResolver setupViewResolver() {
```



Happy Coding!

