



JAVA

PetStore

Allen Long

allen@huihoo.com

<http://www.huihoo.com>

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内容安排



- PetStore介绍
 - PetStore架构
 - PetStore的Web层
 - PetStore的EJB层
 - PetStore的操作,管理
 - PetStore的安全
 - PetStore的Client端



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- PetStore的安装,部署
 - 安装
 - 使用
 - 编译
 - 配置
- PetStore模式



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PetStore安装



系统需求:

Java 2 SDK, Standard Edition, v1.4.1 or higher

Java 2 SDK, Enterprise Edition, v1.3.1

设置环境变量:

```
set JAVA_HOME = c:\j2sdk1.4.1
```

```
set J2EE_HOME = c:\j2sdkee1.3.1
```

安装PetStore

```
setup.bat
```

启动Cloudscape

```
cd %J2EE_HOME%\bin\cloudscape.bat -start
```

启动J2EE server

```
cd %J2EE_HOME%\bin\j2ee.bat -verbose
```

部署PetStore

```
cd <petstore.home>setup.bat deploy
```



使用PetStore



`http://localhost:8000/petstore`

`http://localhost:8000/admin/`

`http://localhost:8000/supplier/`

使用supplier之前,要先退出admin client



编译PetStore



1./src/build.properties

```
j2ee.server.name=localhost
```

```
j2ee.server.port=8000
```

```
javac.debug=off
```

```
#Please comment/uncomment the following lines depending on your OS
```

```
#Script suffixes on unix
```

```
#j2ee-script-suffix=
```

```
#jwsdp-script-suffix=.sh
```

```
j2ee.home=c:\j2sdkee1.3.1
```

```
#Script suffixes on windows
```

```
j2ee-script-suffix=.bat
```

```
jwsdp-script-suffix=.bat
```

2./src/build.bat // 编译所有的部件

3. /src/Apps/admin/src/build.bat //编译单独的部件



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配置PetStore



启动部署工具 c:\j2sdkee1.3.1\bin\deploytool

打开opc.ear文件

Setting Up E-mail Notifications

1.Enable order approval notifications.

select OrderProcessingCenterEAR -> OrderProcessingCenterJAR -> MailOrderApprovalMDB.

In the inspector on the right panel, select the Env. Entries tab.

Select the param/SendApprovalMail entry, and set its value to true

用同样的方式:

1.2Enable order confirmation notifications.

1.3.Enable order completion notifications.

2.Configure the mail service.

OrderProcessingCenterEAR -> MailerJAR -> MailerMDB

Resource/mail/MailSession

或通过部署描述符部署 <petstore.home>/src/apps/opc/src/ejb-jar.xml



配置PetStore



配置数据库

1. `<petstore.home>/src/apps/petstore/src/docroot/populate/PopulateSQL.xml`

2. `<petstore.home>/src/apps/petstore/src/docroot/CatalogDAOOSQL.xml`

3. 编辑Storefront's Web 部署描述符

`<petstore.home>/src/apps/petstore/src/docroot/WEB-INF/web.xml`

4. 编辑catalogEJB部署描述符

`<petstore.home>/src/components/catalog/src/ejb-jar.xml`



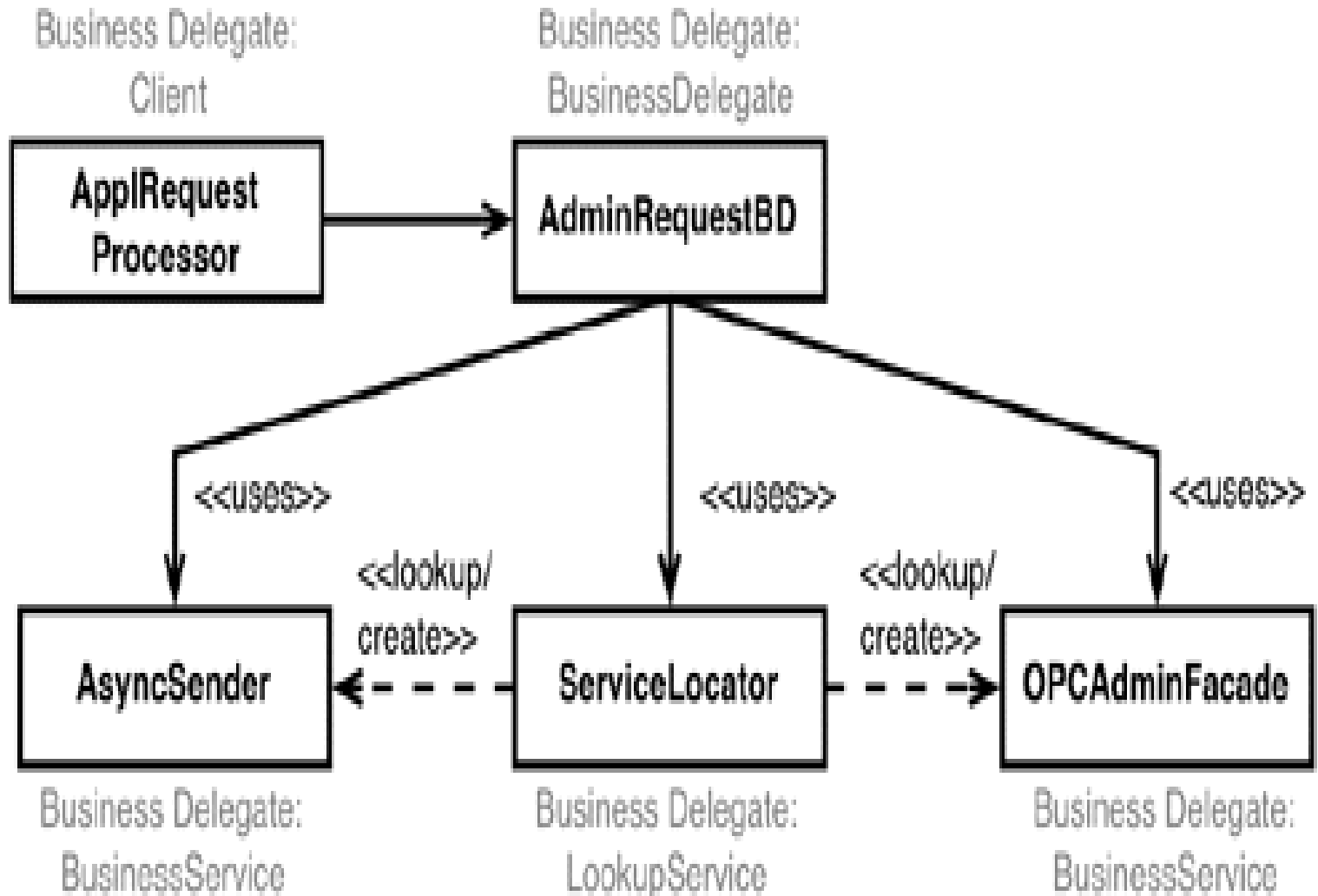
PetStore实现的J2EE模式



Pattern Name	Description
<u>Business Delegate</u>	Reduce coupling between Web and Enterprise JavaBeans™ tiers
<u>Composite Entity</u>	Model a network of related business entities
<u>Composite View</u>	Separately manage layout and content of multiple composed views
<u>Data Access Object (DAO)</u>	Abstract and encapsulate data access mechanisms
<u>Fast Lane Reader</u>	Improve read performance of tabular data
<u>Front Controller</u>	Centralize application request processing
<u>Intercepting Filter</u>	Pre- and post-process application requests
<u>Model-View-Controller</u>	Decouple data representation, application behavior, and presentation
<u>Service Locator</u>	Simplify client access to enterprise business services
<u>Session Facade</u>	Coordinate operations between multiple business objects in a workflow
<u>Transfer Object</u>	Transfer business data between tiers
<u>Value List Handler</u>	Efficiently iterate a virtual list
<u>View Helper</u>	Simplify access to model state and data access logic



Business Delegate



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Business Delegate

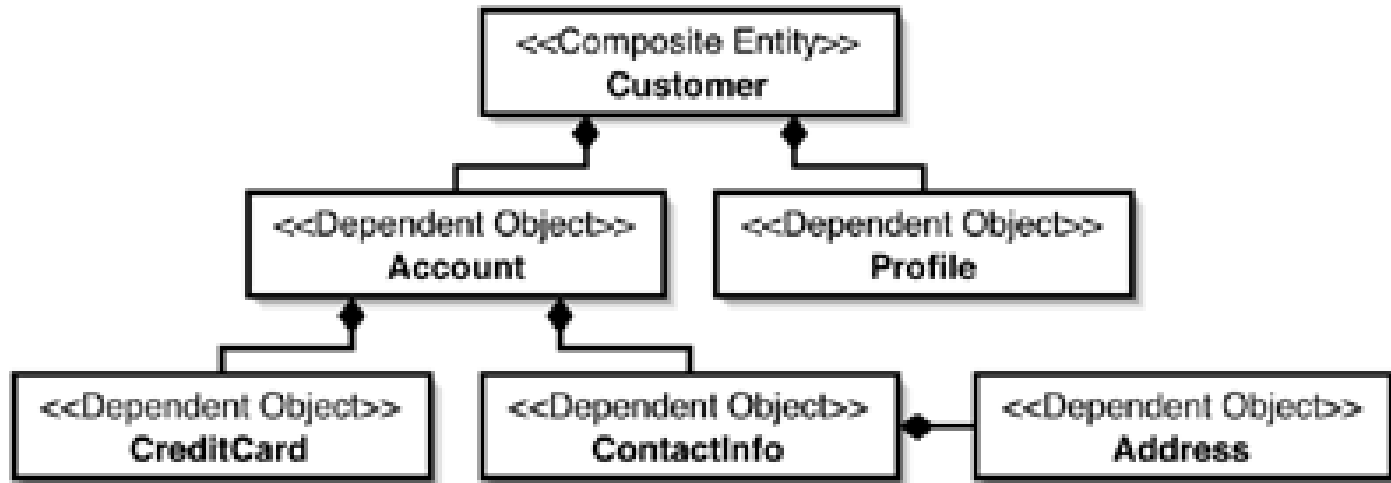


```
public AdminRequestBD() throws AdminBDEException {  
    try {  
        OPCAdminFacadeHome home = (OPCAdminFacadeHome)  
ServiceLocator.getInstance().getRemoteHome(OPC_ADMIN_NAME,  
OPCAdminFacadeHome.class);  
        opcAdminEJB = home.create();  
    } catch (ServiceLocatorException sle) {  
        throw new AdminBDEException(sle.getMessage());  
    } catch (CreateException ce) {  
        throw new AdminBDEException(ce.getMessage());  
    } catch (RemoteException re) {  
        throw new AdminBDEException(re.getMessage());  
    }  
}
```



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Composite Entity



Classes implementing composite entity Customer

Entity	EJB Class	Component Interface	Home Interface
Customer	CustomerEJB	CustomerLocal	CustomerLocalHome
Profile	ProfileEJB	ProfileLocal	ProfileLocalHome
Account	AccountEJB	AccountLocal	AccountLocalHome
CreditCard	CreditCardEJB	CreditCardLocal	CreditCardLocalHome
ContactInfo	ContactInfoEJB	ContactInfoLocal	ContactInfoLocalHome
Address	AddressEJB	AddressLocal	AddressLocalHome





Composite View



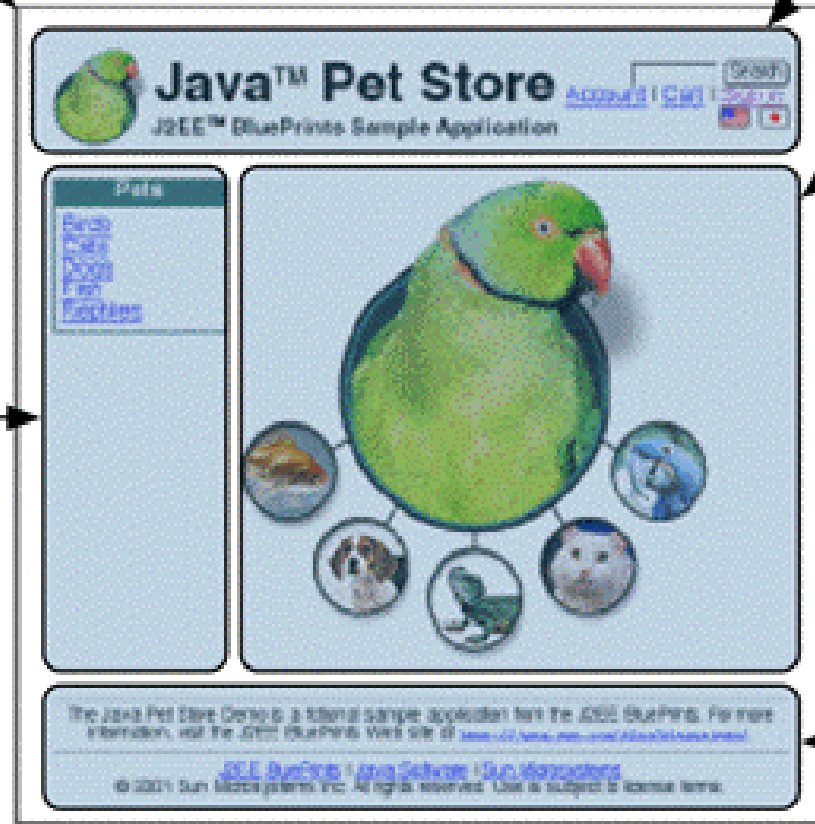
template.jsp

banner.jsp

main.jsp

sidebar.jsp

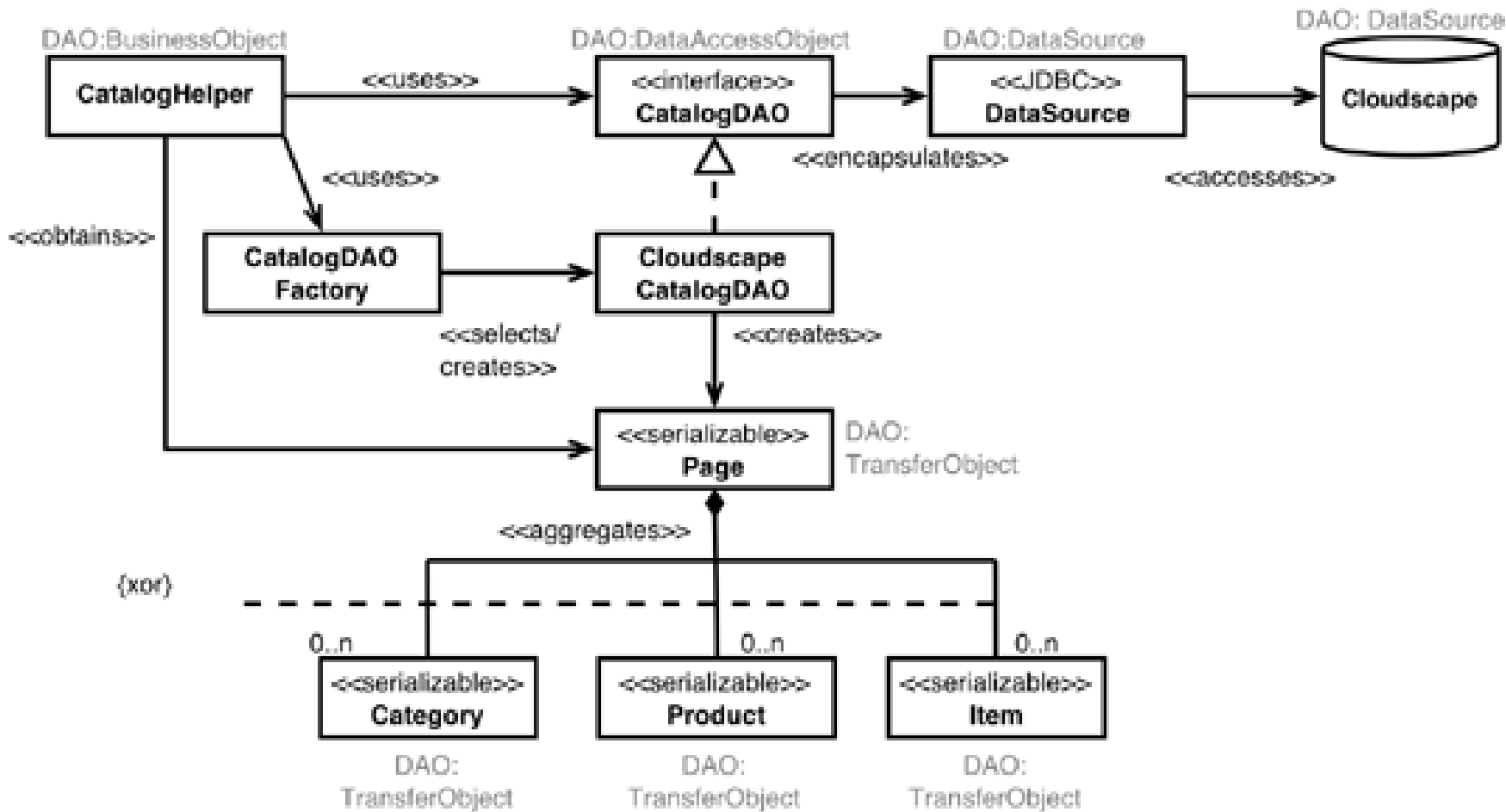
footer.jsp



两个重要的文件:template.jsp , screendefinitions.xml



Data Access Object



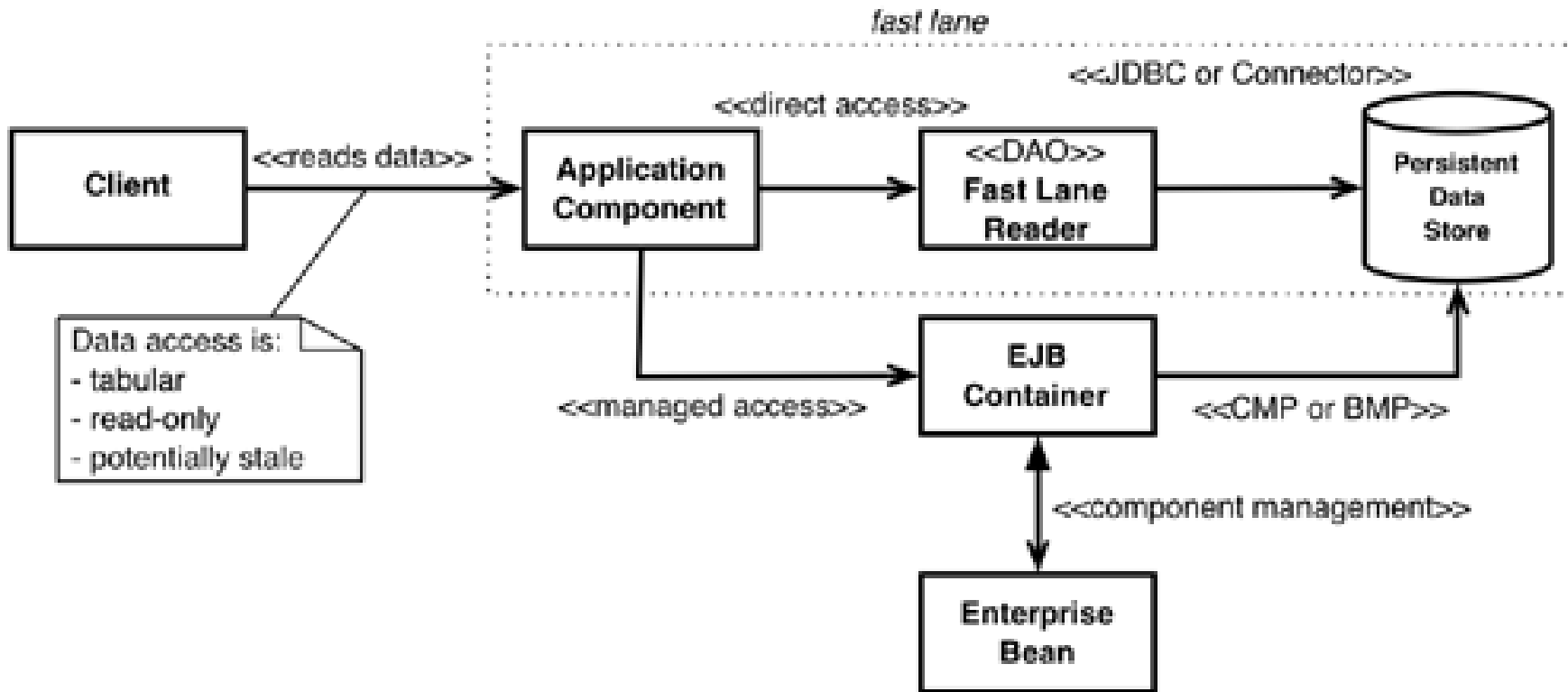
Data Access Object



```
public interface CatalogDAO {  
    public Category getCategory(String categoryID, Locale l) throws  
    CatalogDAOSysException;  
    public Page getCategories(int start, int count, Locale l) throws  
    CatalogDAOSysException;  
    public Product getProduct(String productID, Locale l) throws  
    CatalogDAOSysException;  
    public Page getProducts(String categoryID, int start, int count, Locale l)  
    throws CatalogDAOSysException;  
    public Item getItem(String itemID, Locale l) throws  
    CatalogDAOSysException;  
    public Page getItems(String productID, int start, int size, Locale l)  
    throws CatalogDAOSysException;  
    public Page searchItems(String query, int start, int size, Locale l)  
    throws CatalogDAOSysException;  
}
```



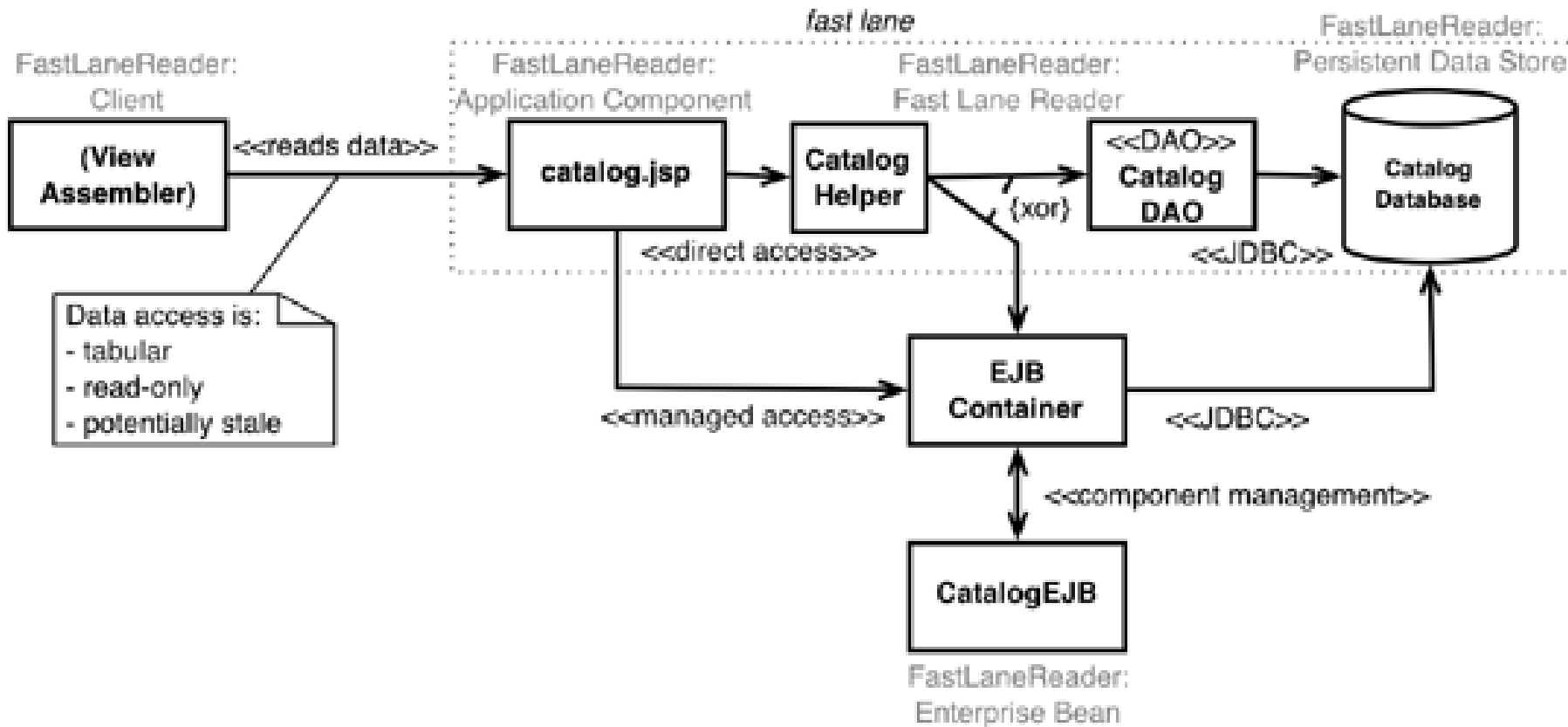
Fast Lane Reader



类图



CatalogHelper acting as fast lane reader



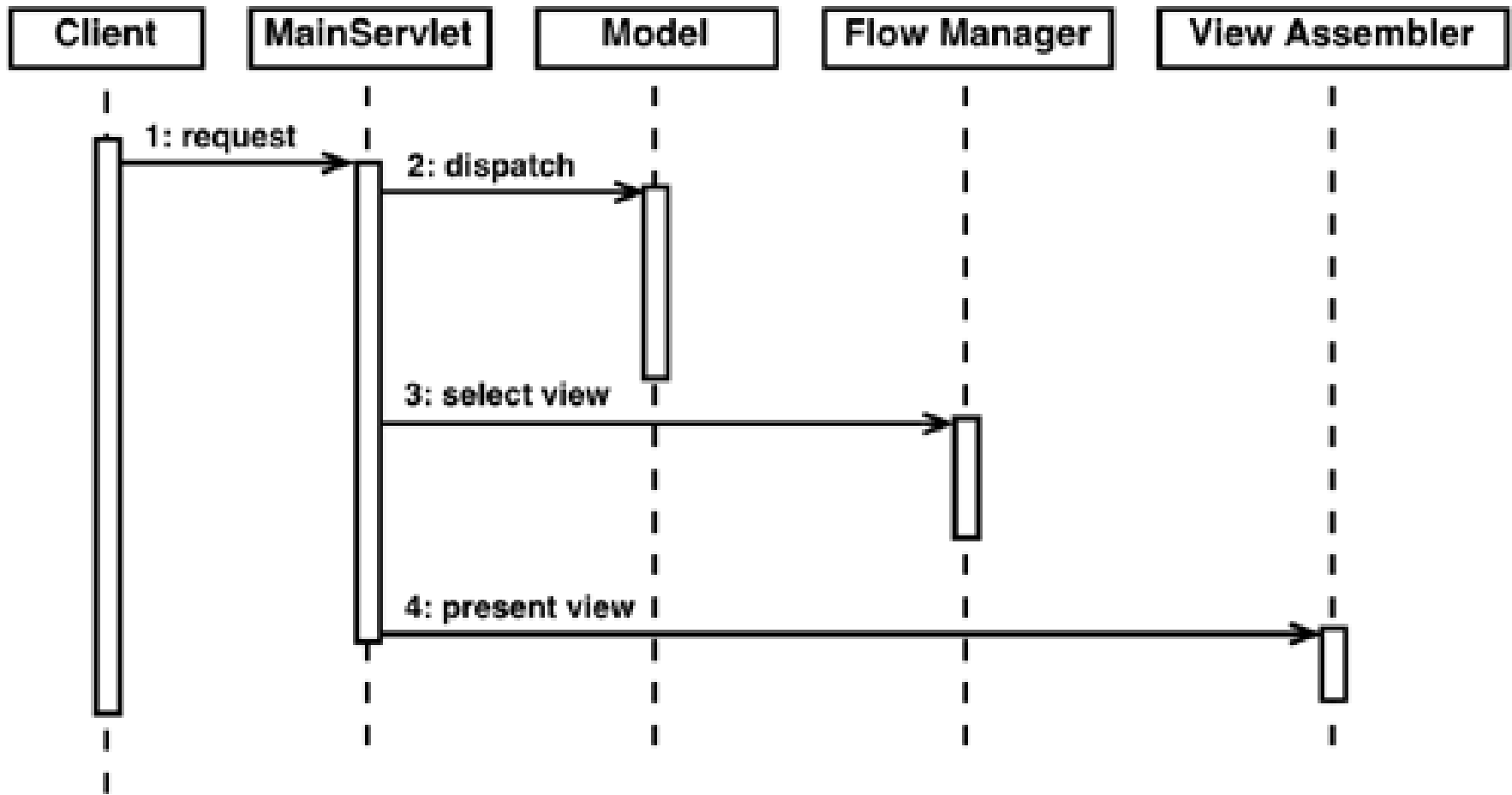
By using the Fast Lane Reader pattern, CatalogHelper can improve performance by avoiding using enterprise beans.



Front Controller

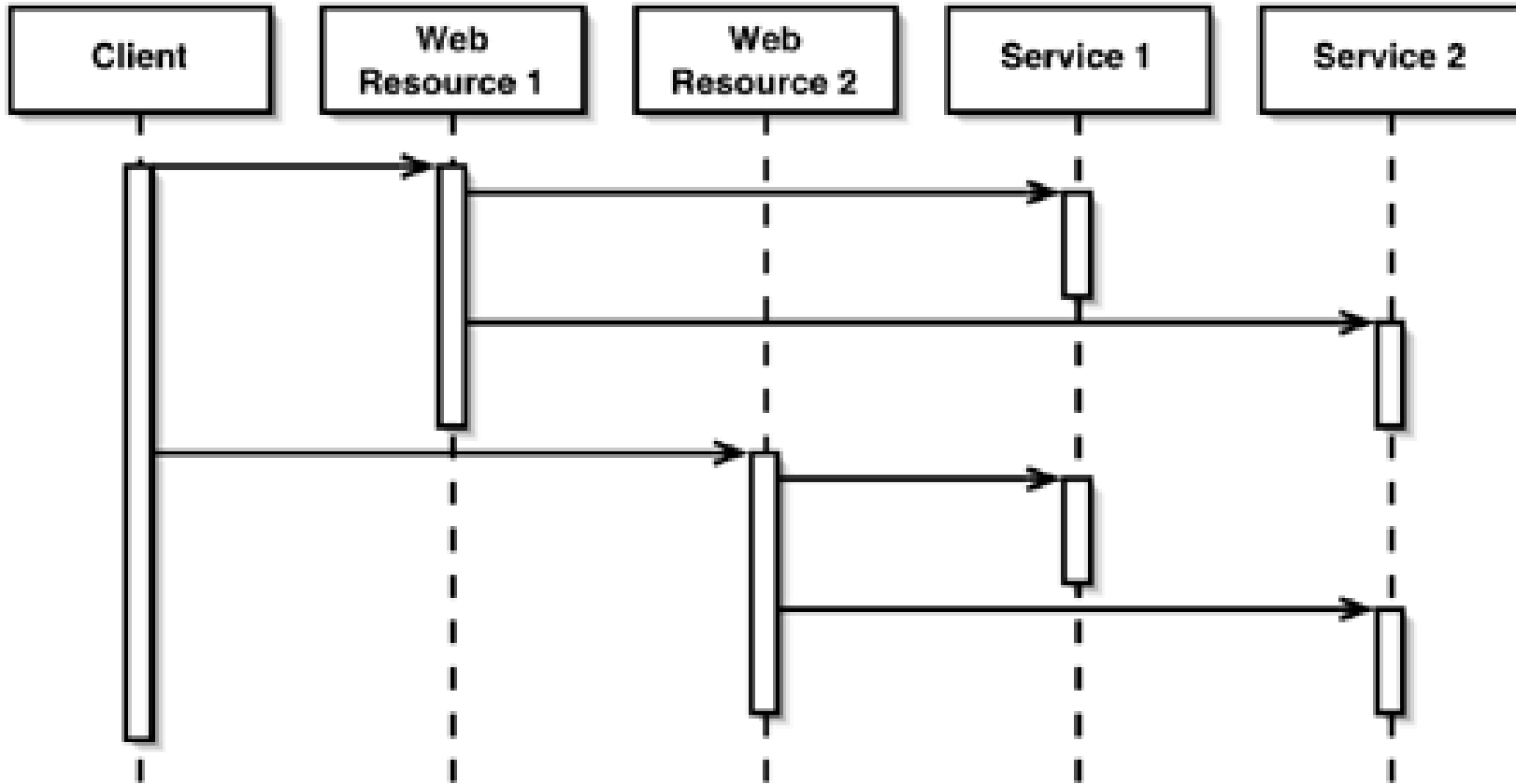


提供一种对请求进行集中处理的机制



Sequence diagram of MainServlet in action

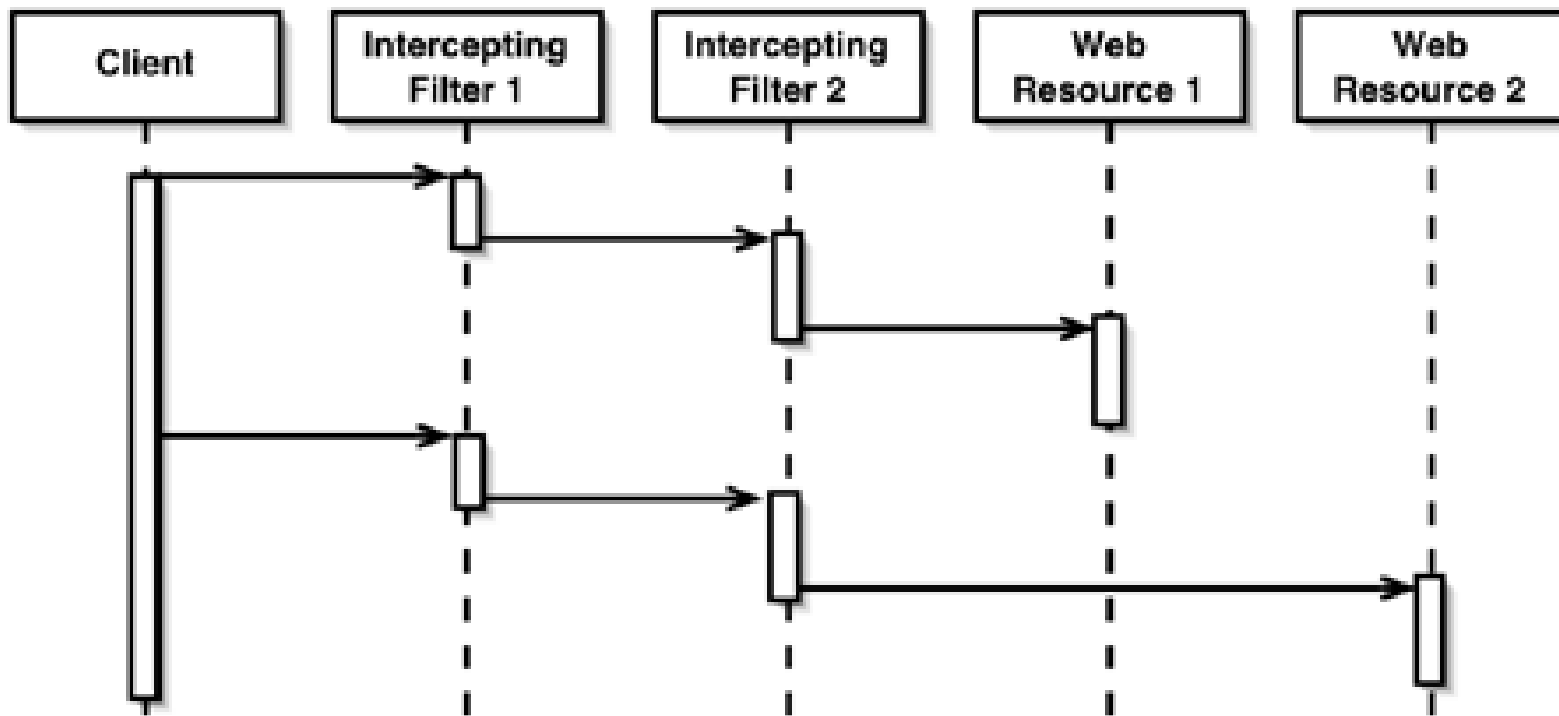
Intercepting Filter



使用Intercepting Filter之前的情形



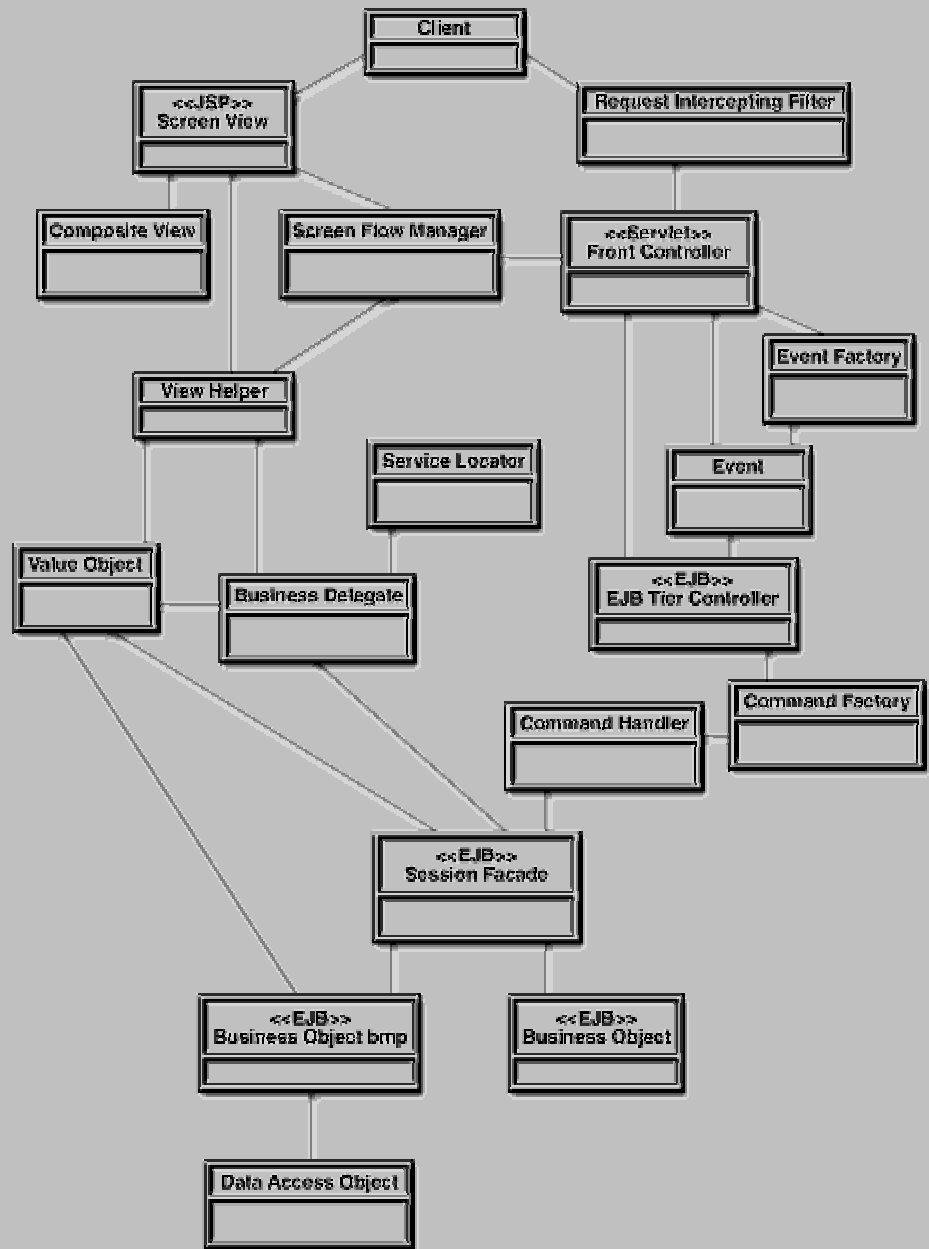
Intercepting Filter



使用Intercepting Filter之后的情形

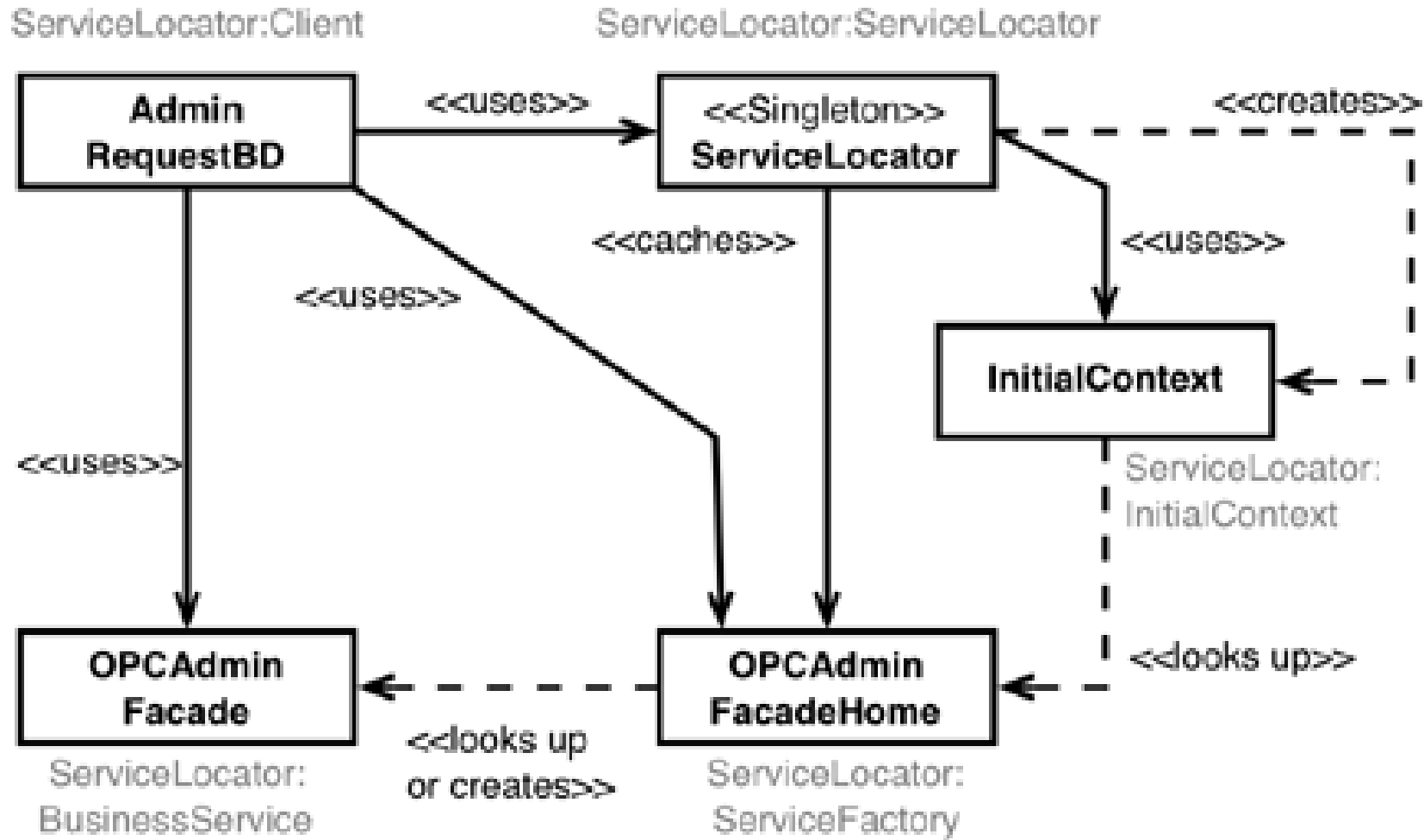


Model-View-Controller



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Service Locator



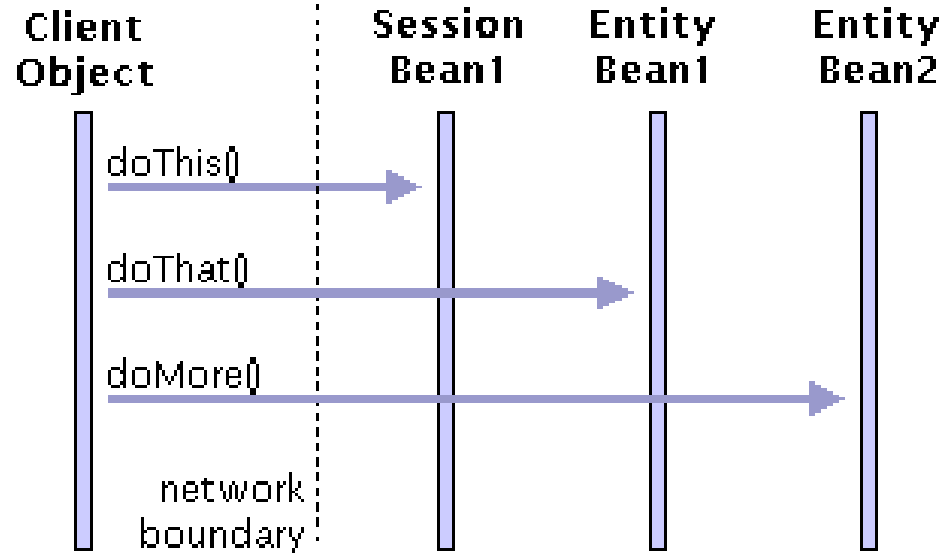
petstore has two service locators: a **Web-tier** class [ServiceLocator](#), and an Enterprise JavaBeans™ (EJB) tier class, also called [ServiceLocator](#).



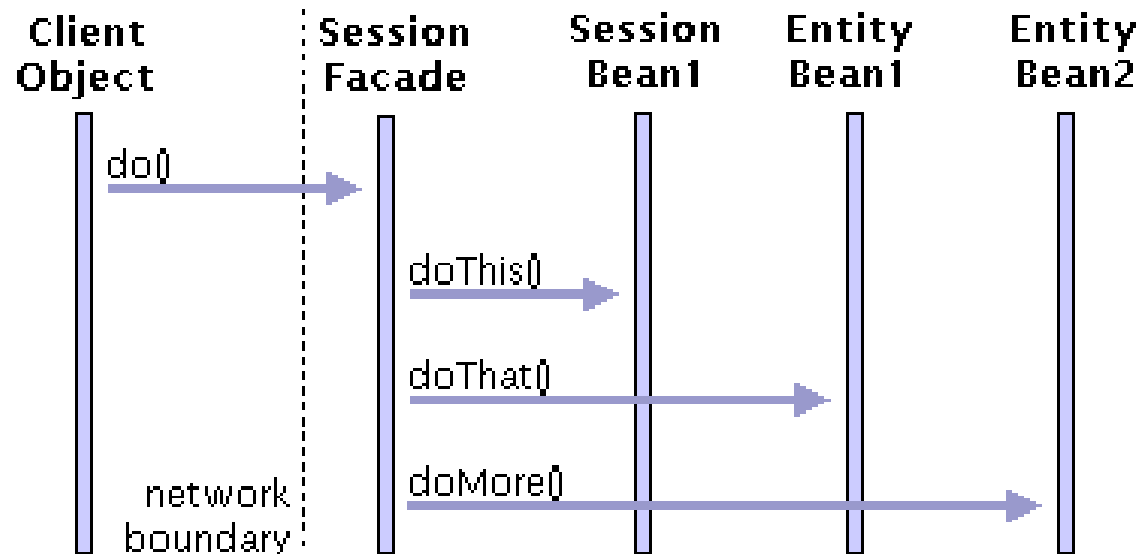


Session Facade

before

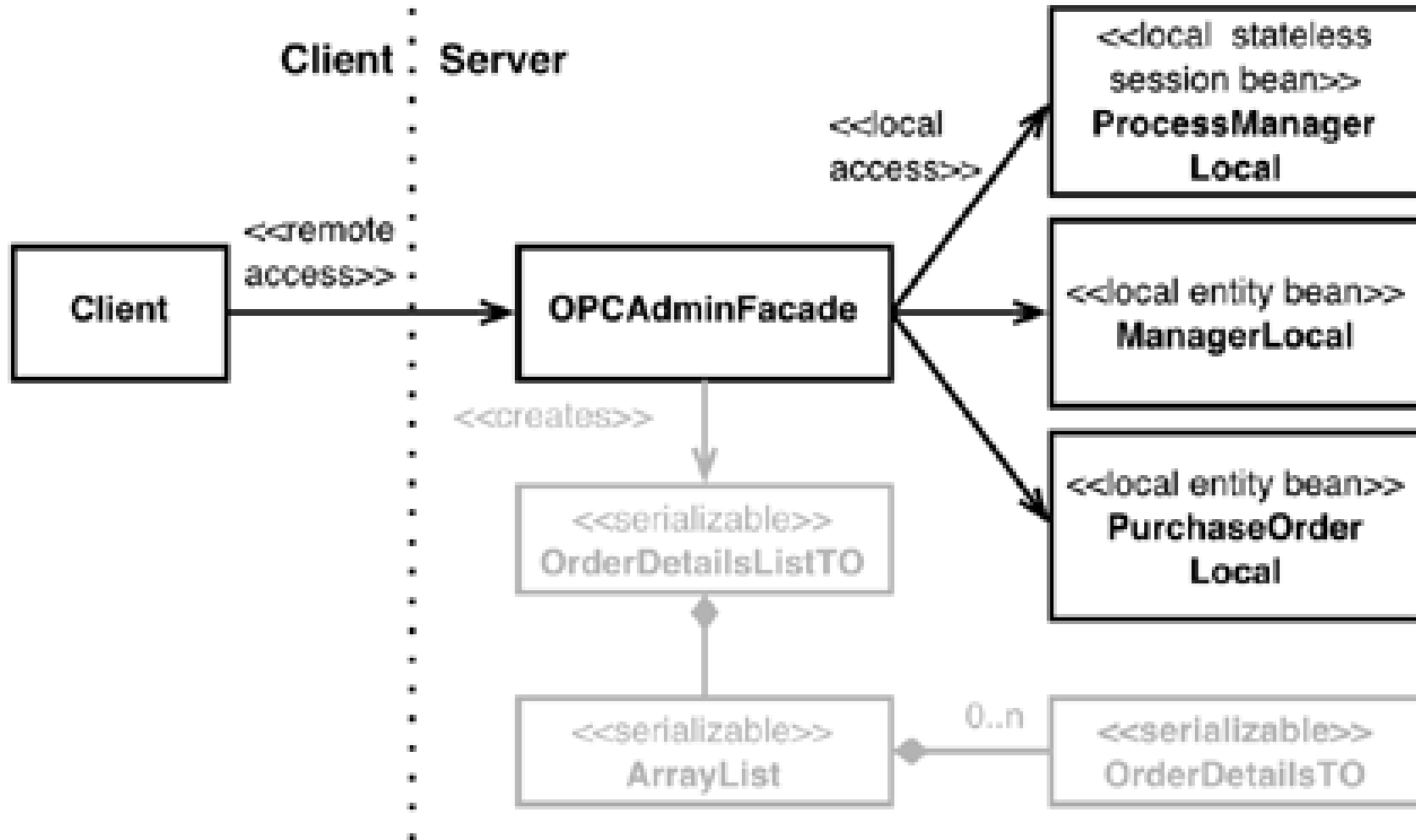


after



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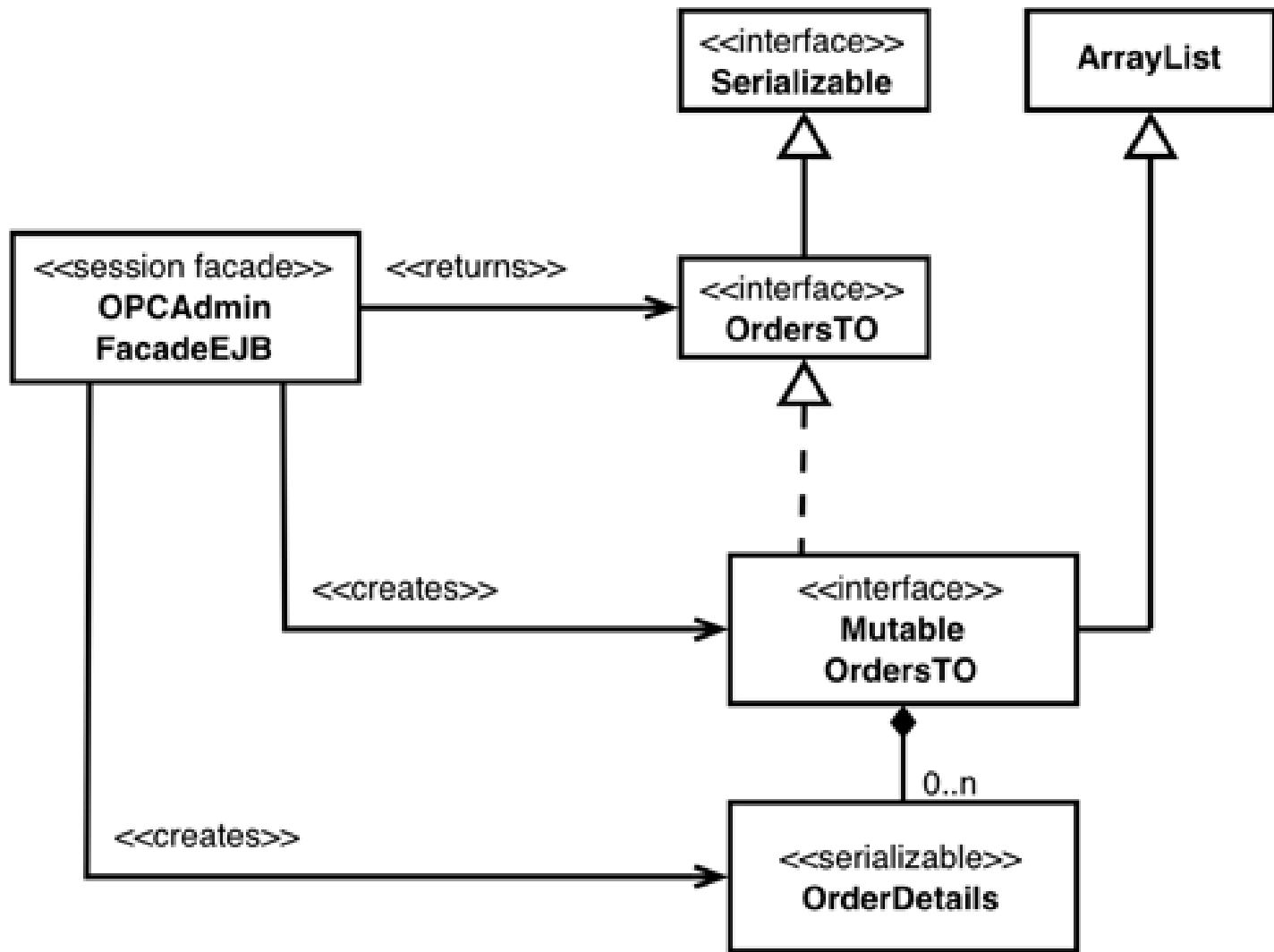
Session Facade



Pet Store order processing workflow采用了这种方式



Transfer Object

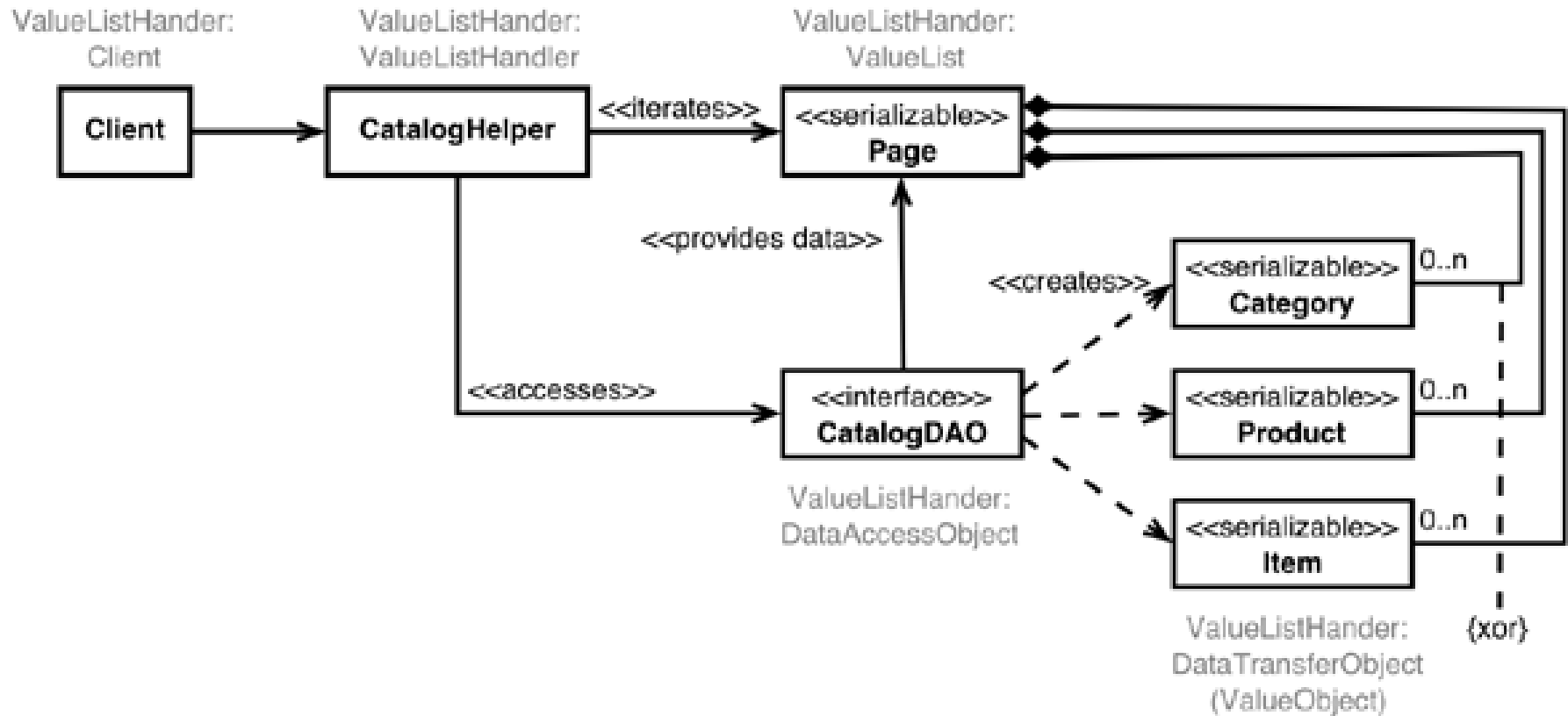


transfer object is a serializable class



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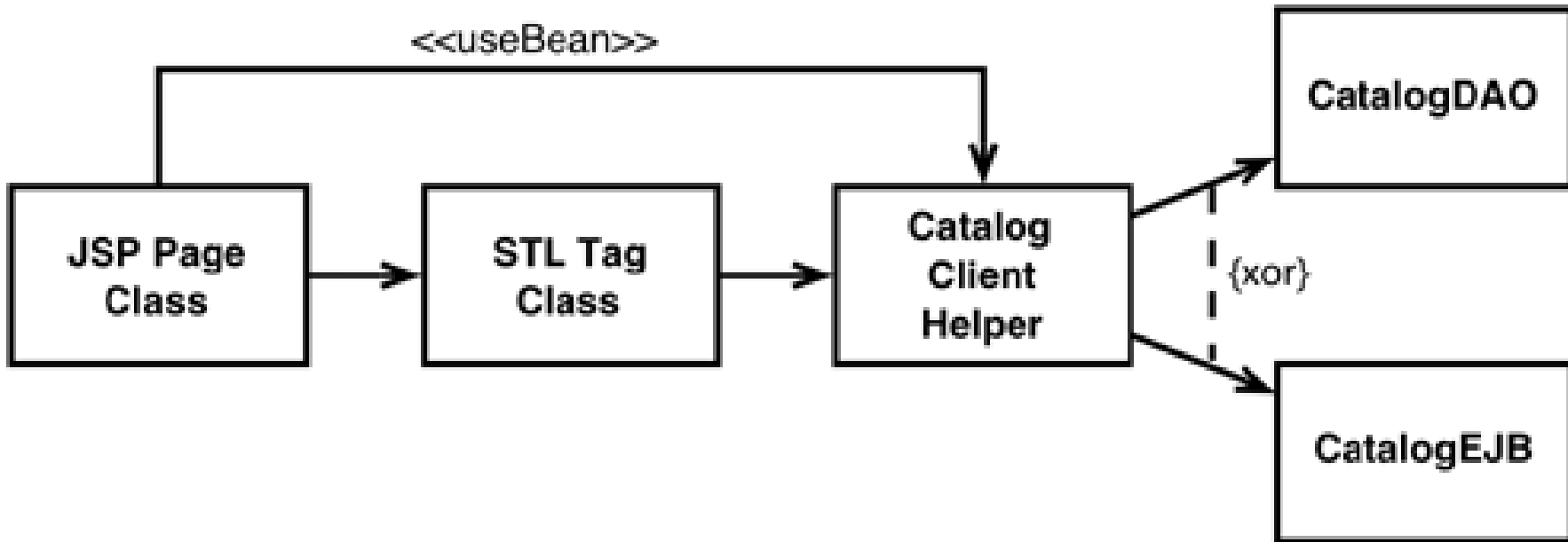
Value List Handler



View Helper



View Helper class diagram



总结



- PetStore是J2EE模式的最佳实践
- 可在PetStore的基础上构建新的电子商务应用



参考资料



- <http://java.sun.com/j2ee>
SUN公司的j2ee站点
- <http://java.sun.com/blueprints/>
SUN公司J2EE BluePrints
- <http://www.huihoo.com>
国内一个关于中间件的专业站点



结束



谢谢大家！

Allen@huihoo.com

<http://www.huihoo.com>



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