PetStore

Allen Long

allen@huihoo.com

http://www.huihoo.com

2004-04

- **PetStore**

PetStore

PetStore　Web

PetStore　EJB

PetStore　　　　,

PetStore

PetStore　Client

- PetStore 　　　　,

- PetStore

PetStore

:

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

Java 2 SDK, Enterprise Edition, v1.3.1

:

set JAVA_HOME = c:\j2sdk1.4.1

set J2EE_HOME = c:\j2sdkee1.3.1

PetStore

setup.bat

Cloudscape

cd %J2EE_HOME%\bin\cloudscape.bat –start

J2EE server

cd %J2EE_HOME%\bin\j2ee.bat –verbose

PetStore

cd <petstore.home>setup.bat deploy

PetStore

http://localhost:8000/petstore

http://localhost:8000/admin/

http://localhost:8000/supplier/

supplier , admin client

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 //

3. /src/Apps/admin/src/build.bat //

PetStore

c:\j2sdkee1.3.1\bin\deploytool

opc.ear

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

:

1.2Enable order confirmation notifications.

1.3.Enable order completion notifications.

2.Configure the mail service.

OrderProcessingCenterEAR -> MailerJAR -> MailerMDB

Resource/mail/MailSession

<petstore.home>/src/apps/opc/src/ejb-jar.xml

PetStore

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

2.<petstore.home>/src/apps/petstore/src/docroot/CatalogDA
OSQL.xml

3.   Storefront's Web
<petstore.home>/src/apps/petstore/src/docroot/WEB-
INF/web.xml

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

PetStore   J2EE

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

# Business Delegate
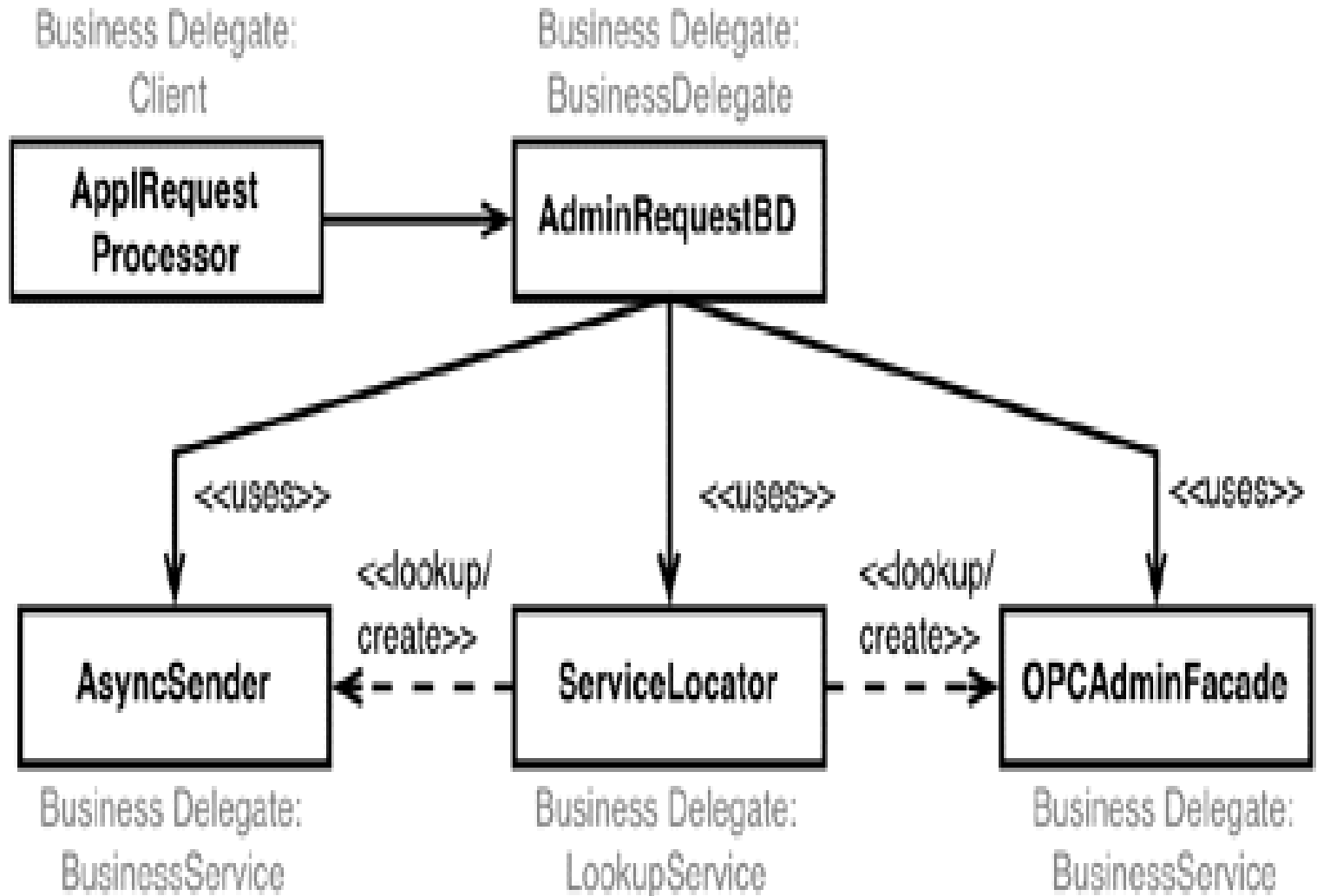
Business Delegate

```java
public AdminRequestBD() throws AdminBDException {

    try {

        OPCAdminFacadeHome home = (OPCAdminFacadeHome)
ServiceLocator.getInstance().getRemoteHome(OPC_ADMIN_NAME,
OPCAdminFacadeHome.class);

        opcAdminEJB = home.create();

    } catch (ServiceLocatorException sle) {

        throw new AdminBDException(sle.getMessage());

    } catch (CreateException ce) {

        throw new AdminBDException(ce.getMessage());

    } catch (RemoteException re) {

        throw new AdminBDException(re.getMessage());

    }

}
```
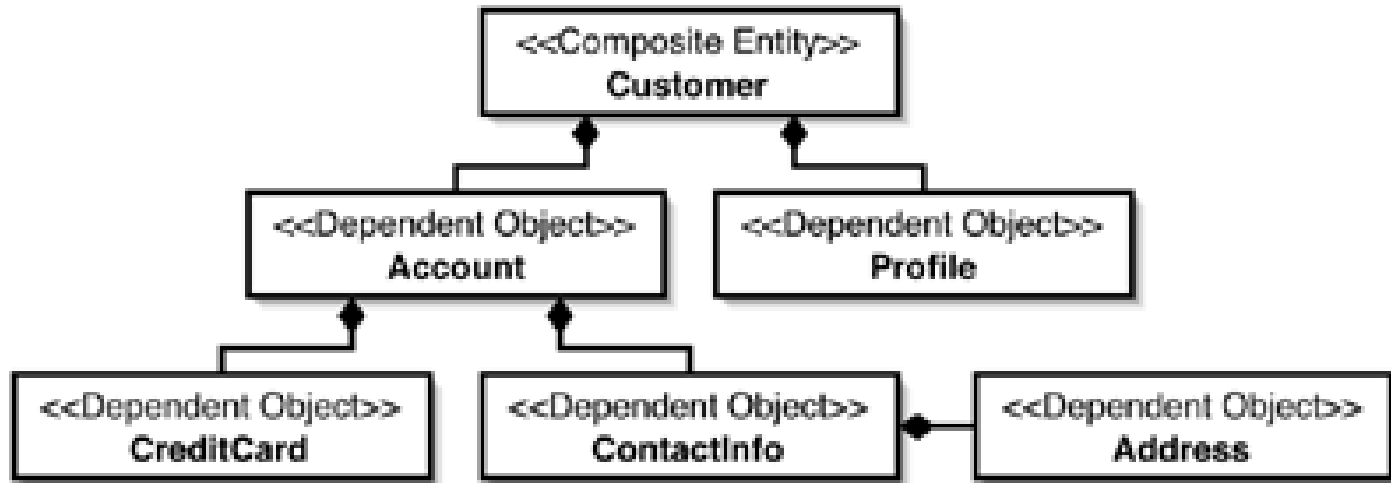
Composite Entity

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
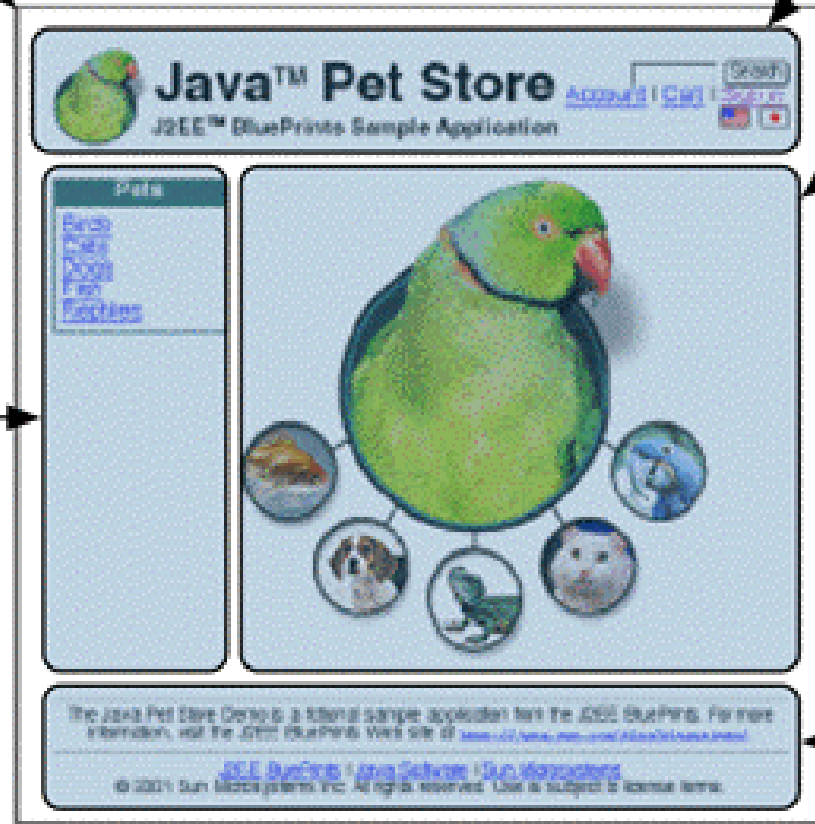
:template.jsp , screendefinitions.xml

Data Access Object
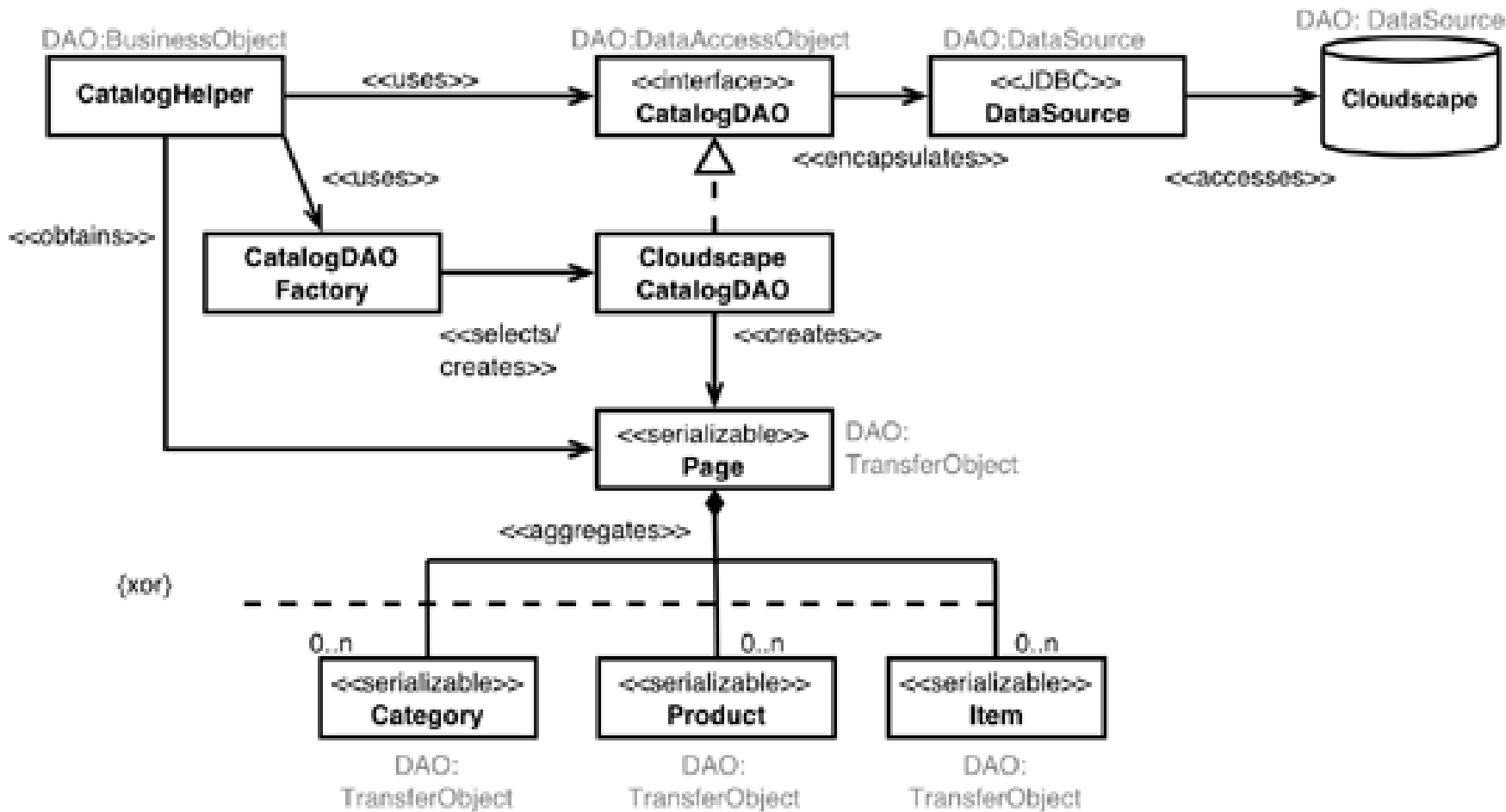
Data Access Object

```java
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;

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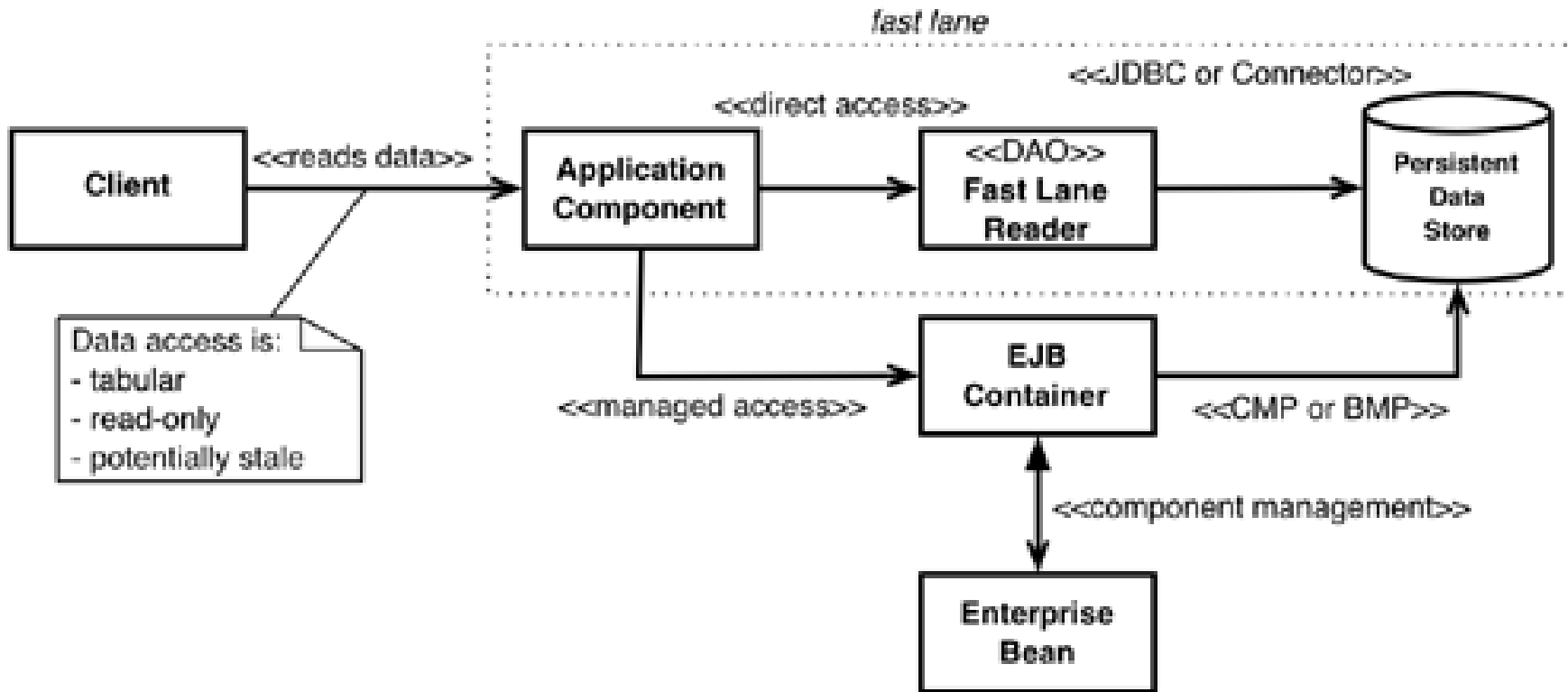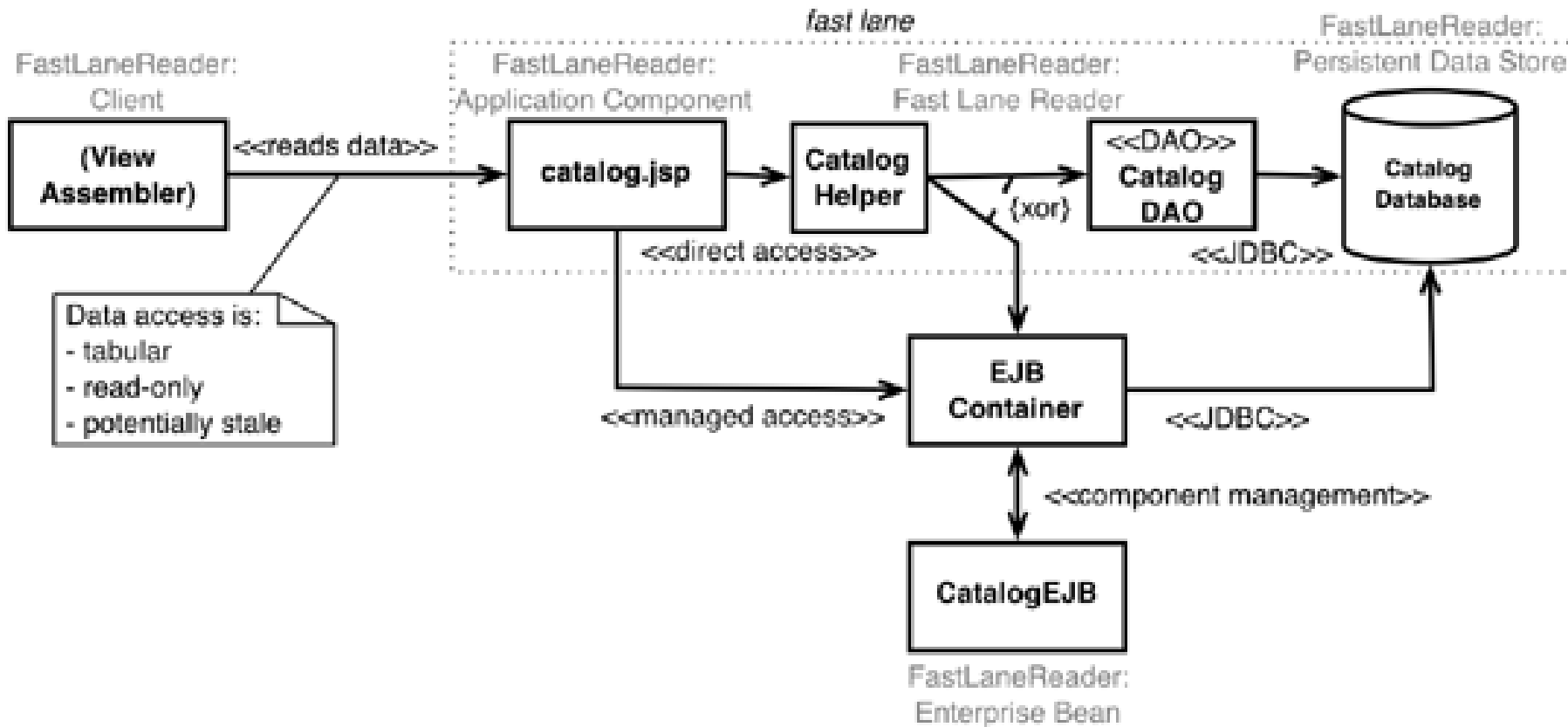
Fast Lane Reader
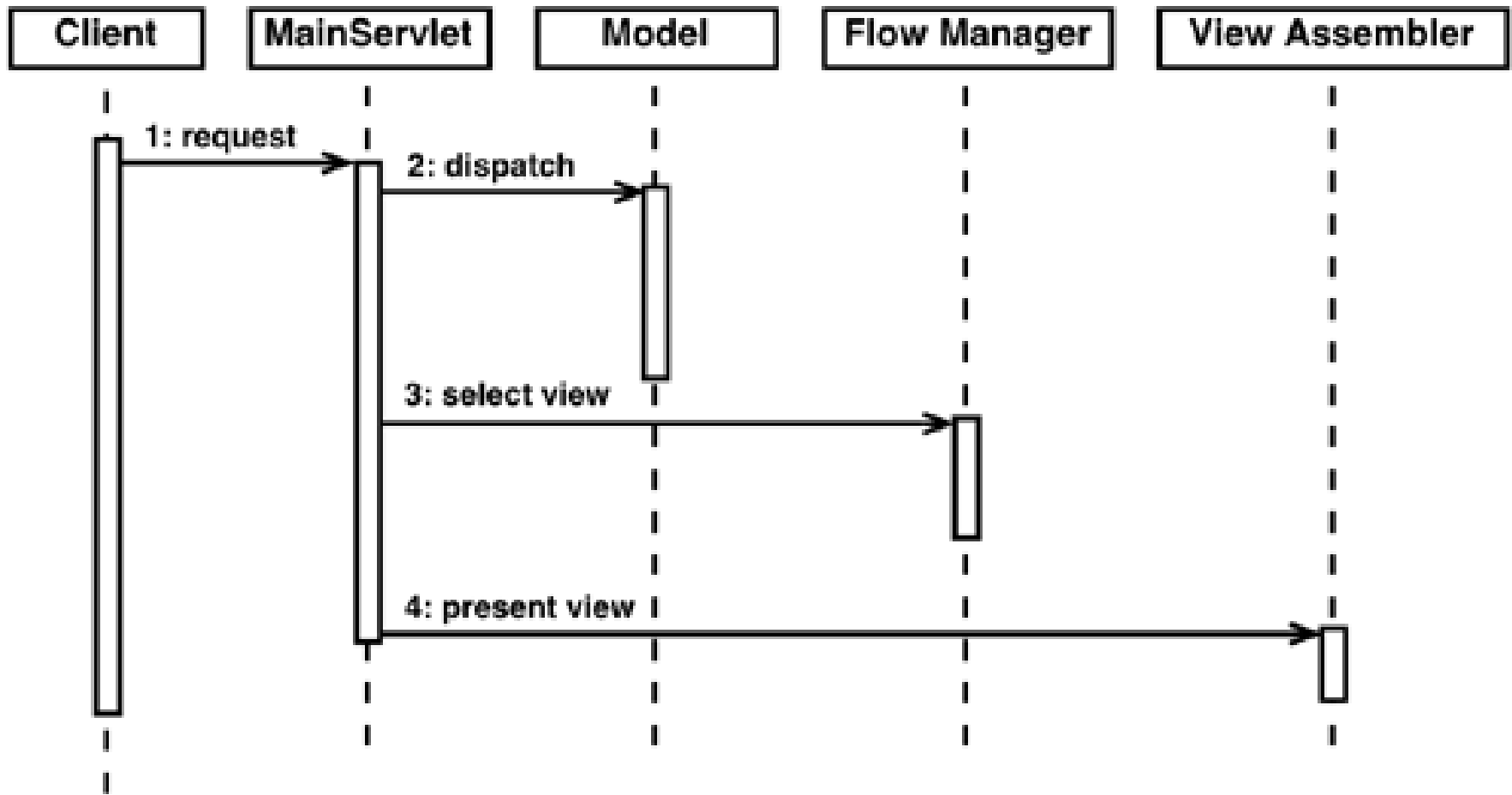
By using the Fast Lane Reader pattern, CatalogHelper can improve performance by avoiding using enterprise beans.
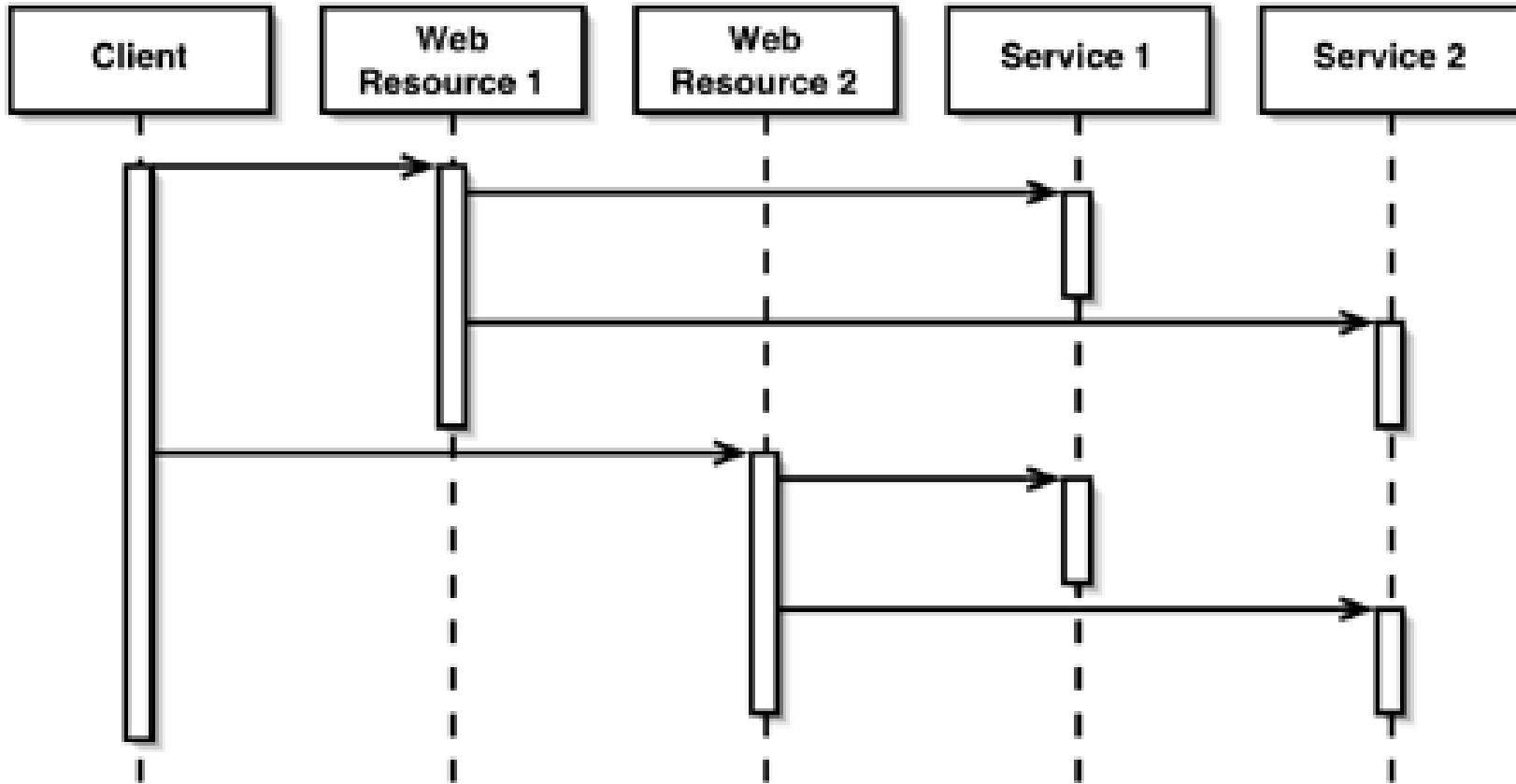
Front Controller

Sequence diagram of MainServlet in action

Intercepting Filter

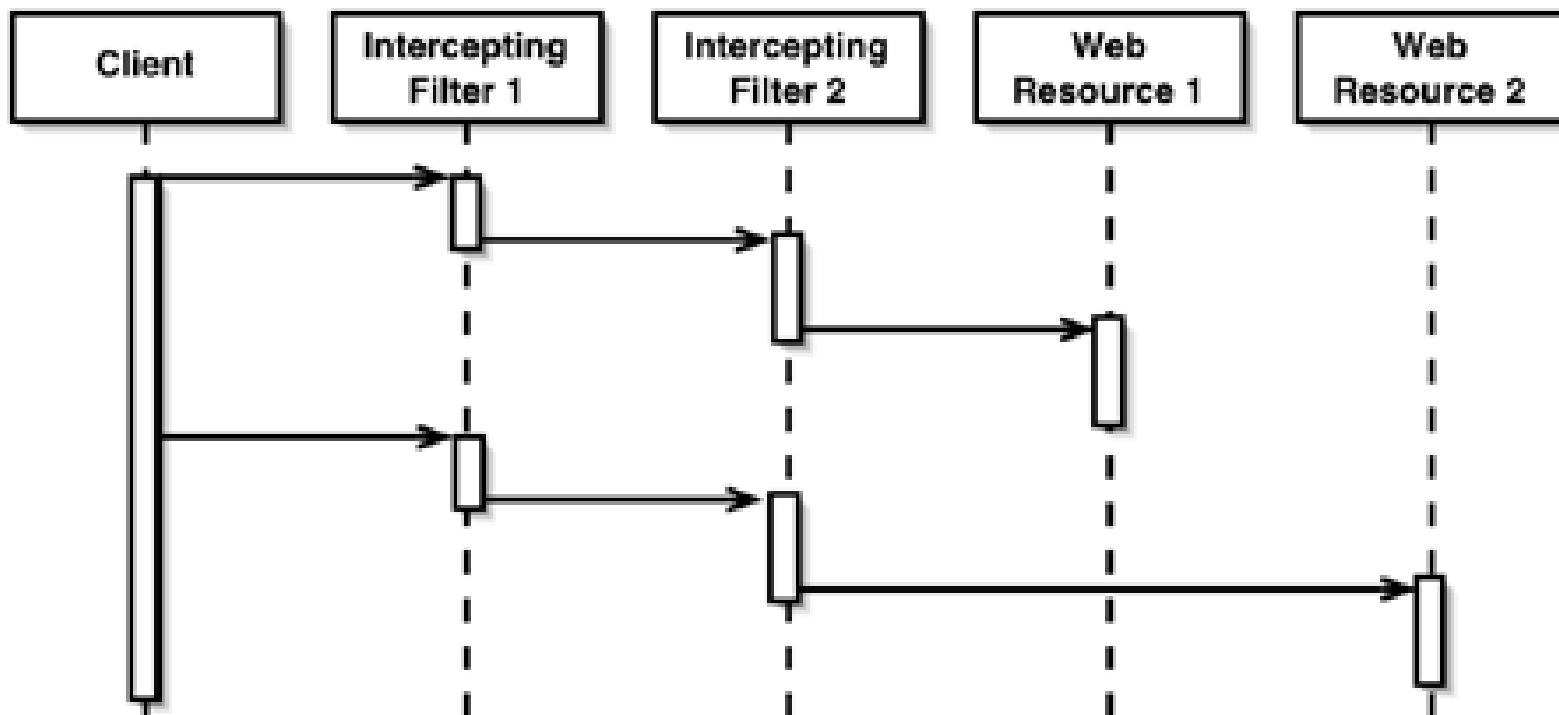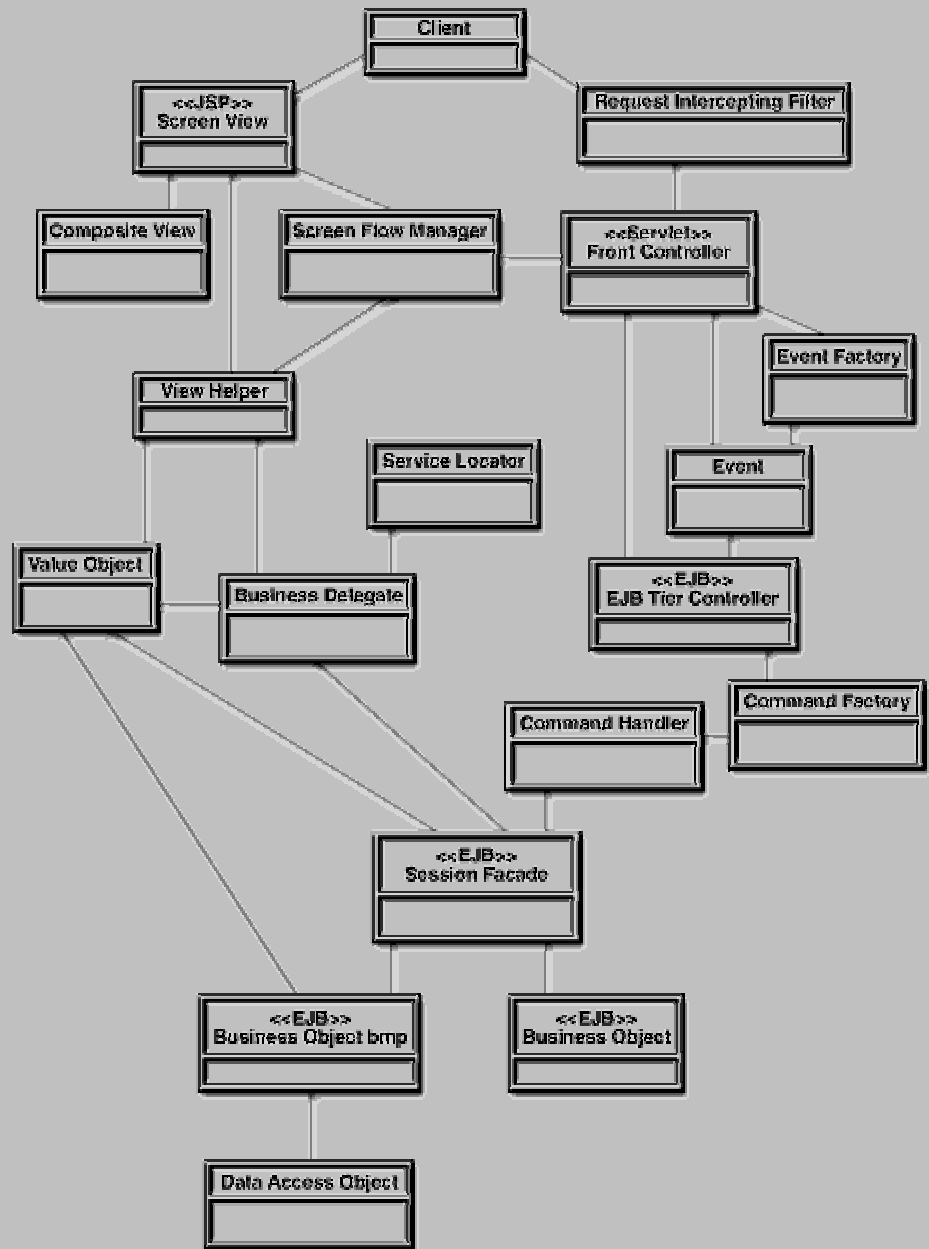Intercepting Filter

Intercepting Filter

Intercepting Filter

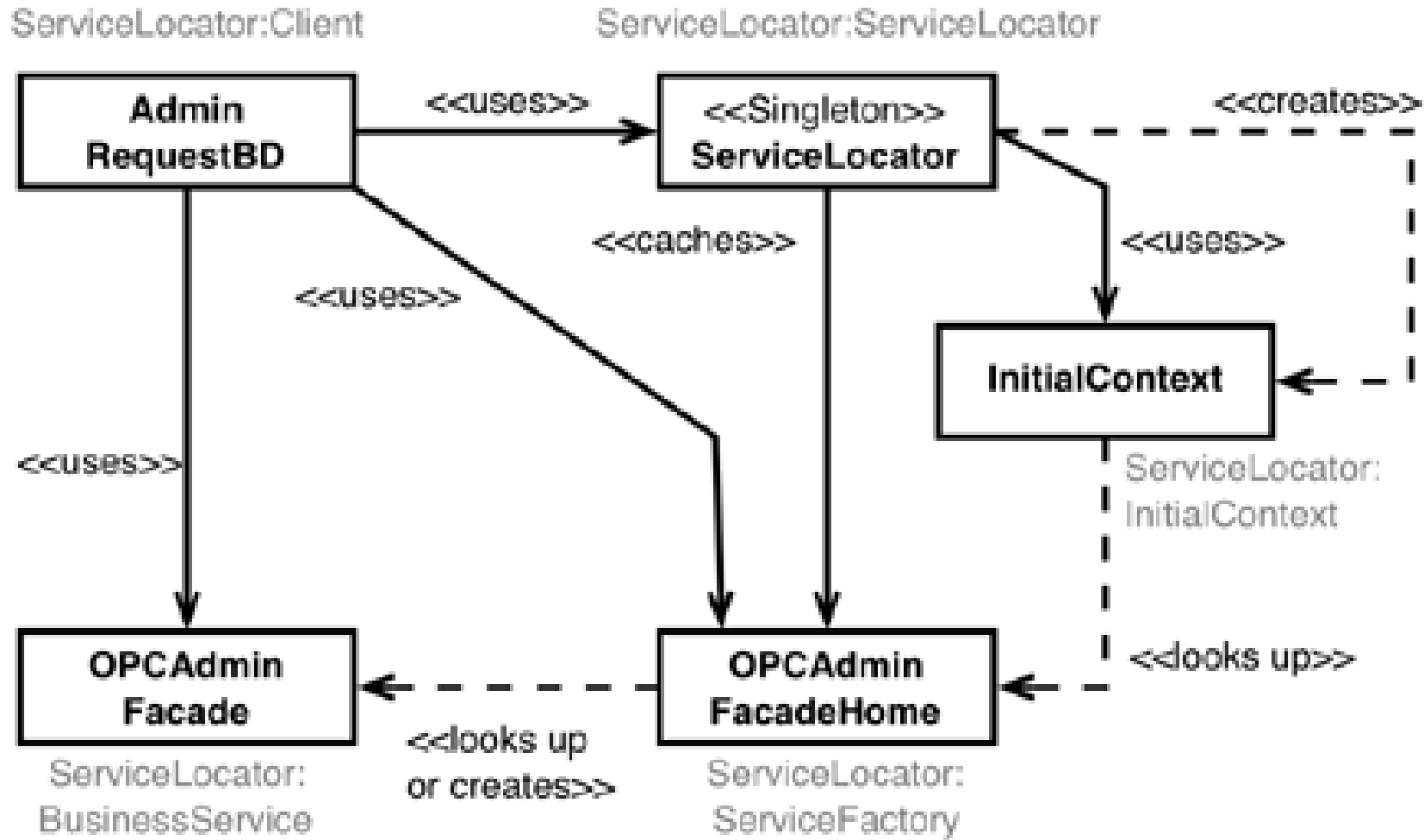# Model-View-Controller

Service Locator

ServiceLocator:Client

ServiceLocator:ServiceLocator

Admin RequestBD <<uses>> <<Singleton>> **ServiceLocator** <<creates>>

<<caches>>

<<uses>>

<<uses>>

InitialContext

ServiceLocator: InitialContext

<<uses>>

<<looks up>>

OPCAdmin Facade <<looks up or creates>> **OPCAdmin FacadeHome**

ServiceLocator: BusinessService

ServiceLocator: ServiceFactory

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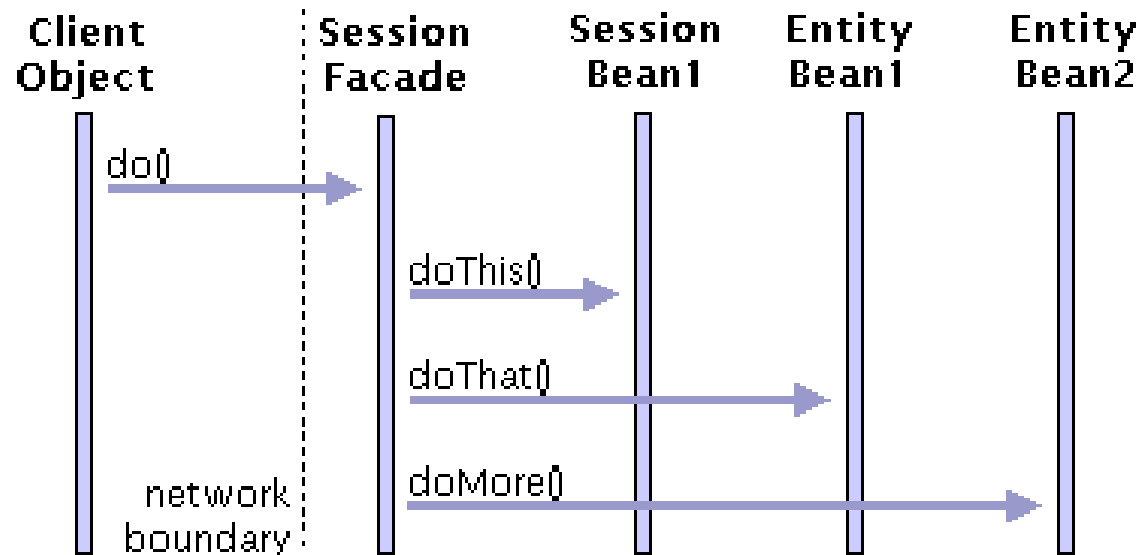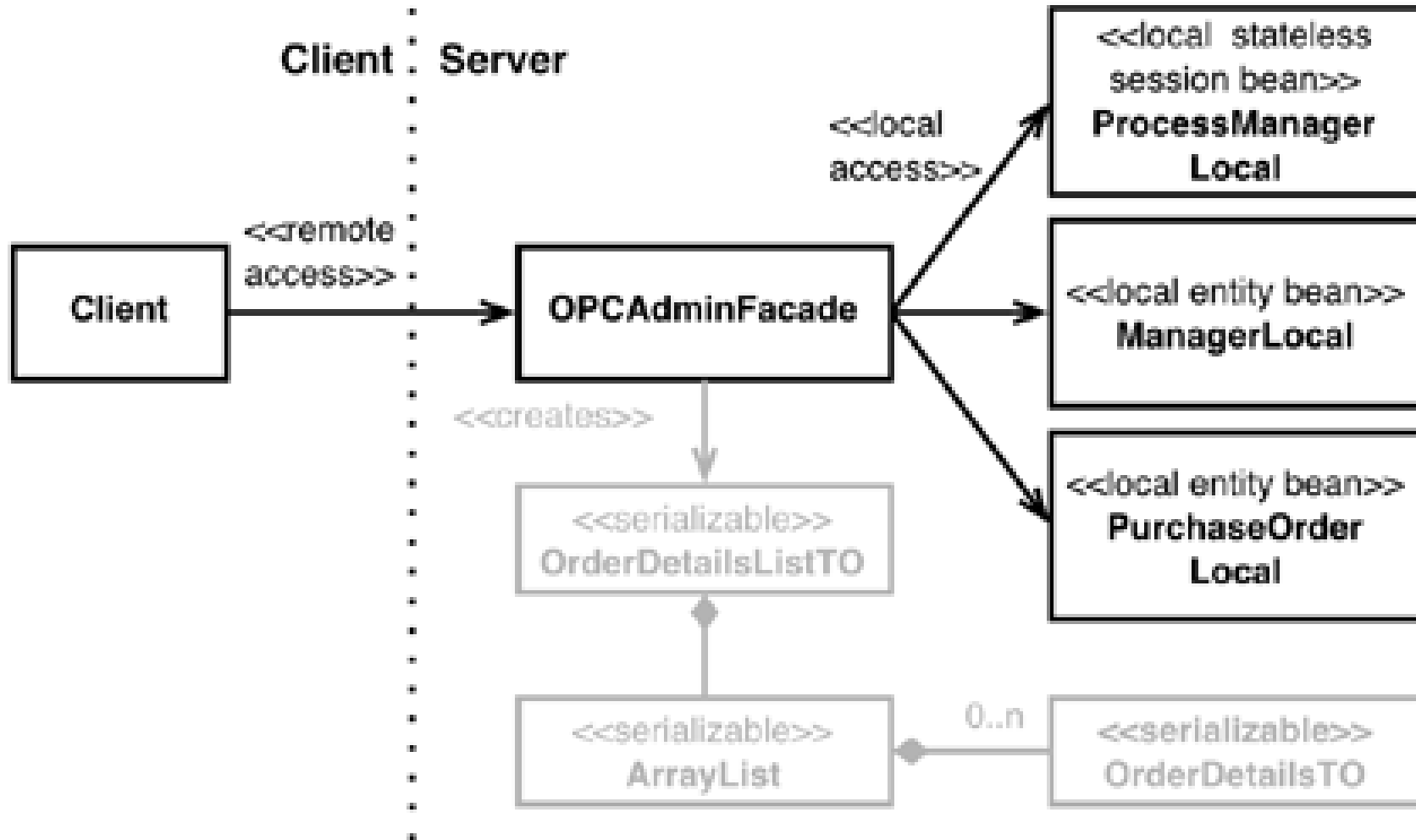
Session Facade

before

| Client Object | Session Bean1 | Entity Bean1 | Entity Bean2 |

doThis()

doThat()

doMore()

network boundary

after

| Client Object | Session Facade | Session Bean1 | Entity Bean1 | Entity Bean2 |

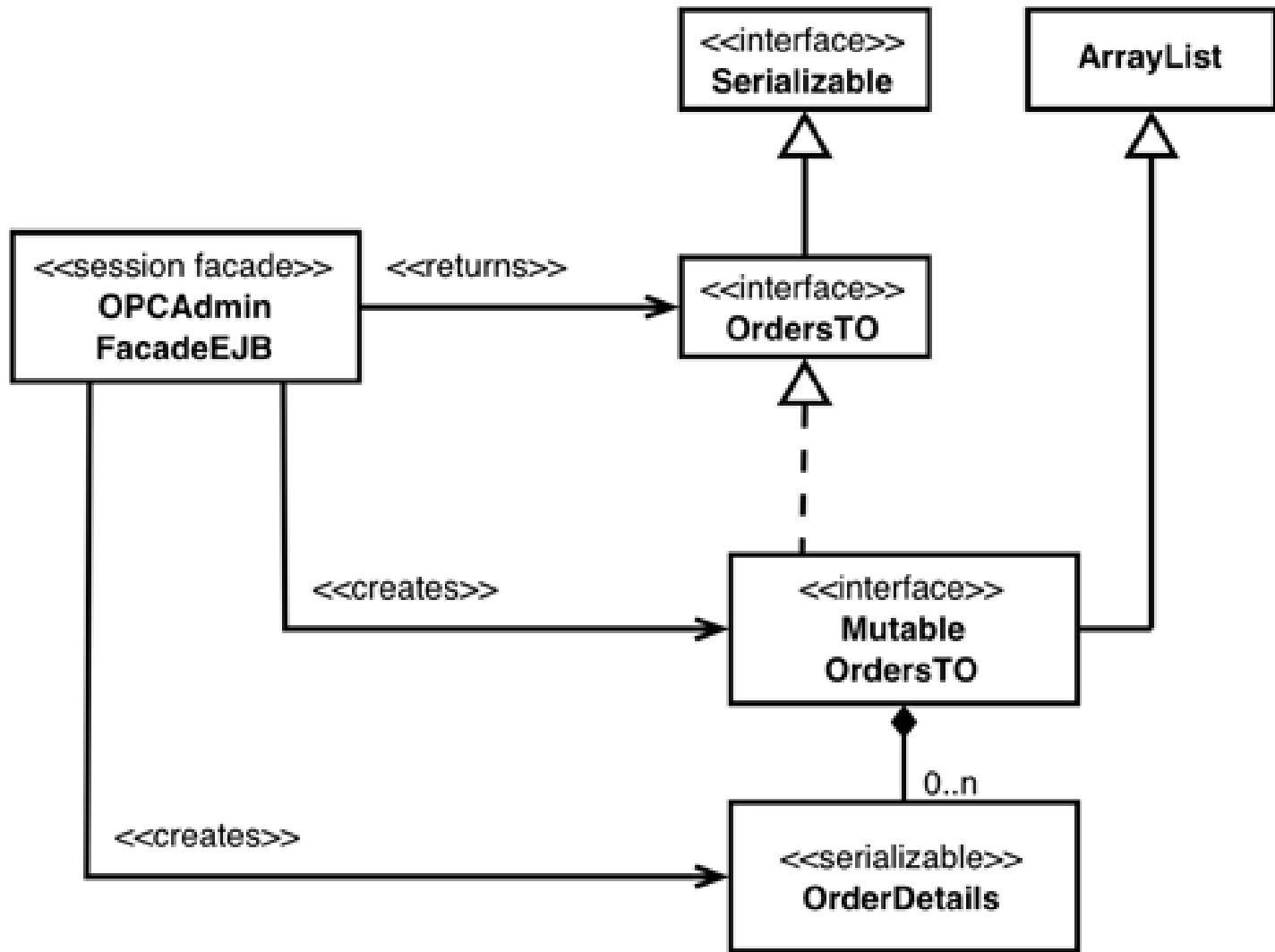do()

doThis()

doThat()

doMore()

network boundary
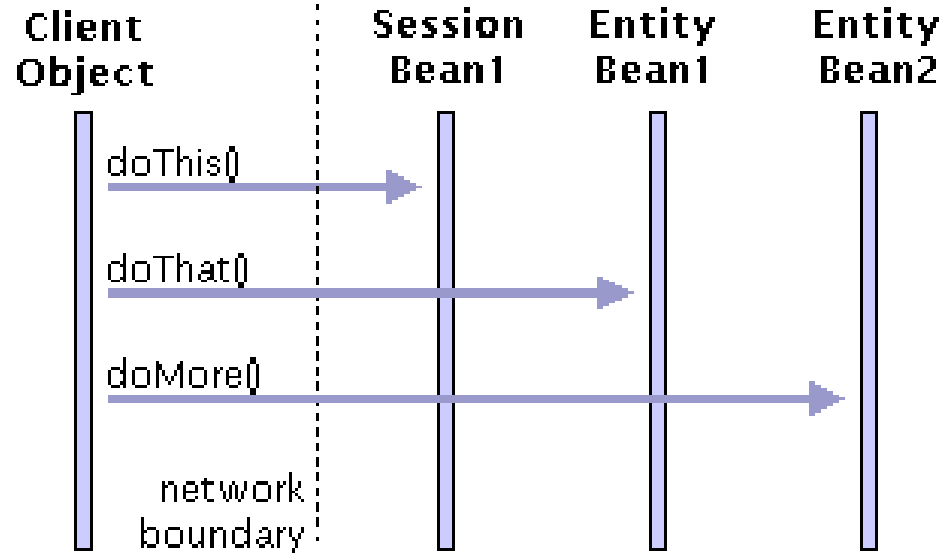
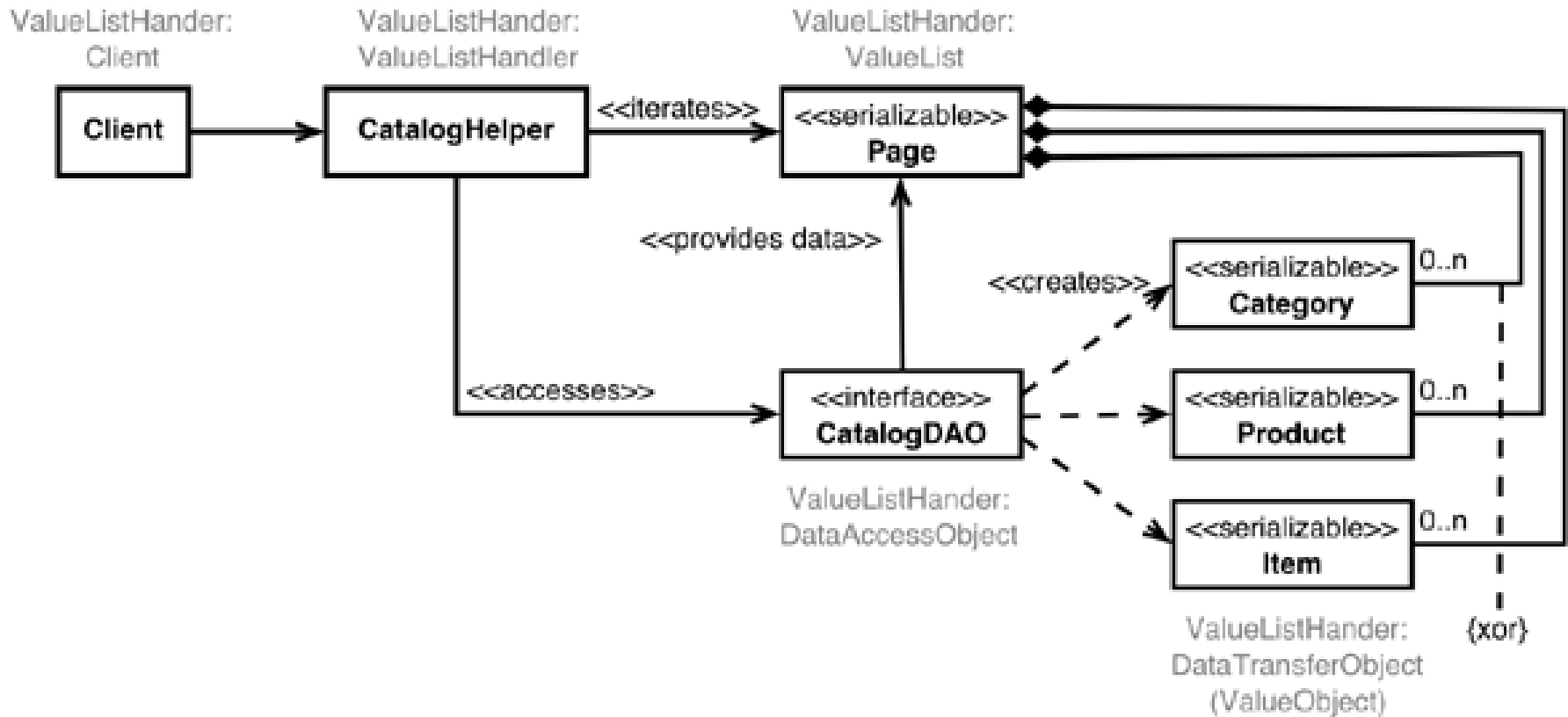# Session Facade

Pet Store order processing workflow

Transfer Object

transfer object is a serializable class

Value List Handler

View Helper
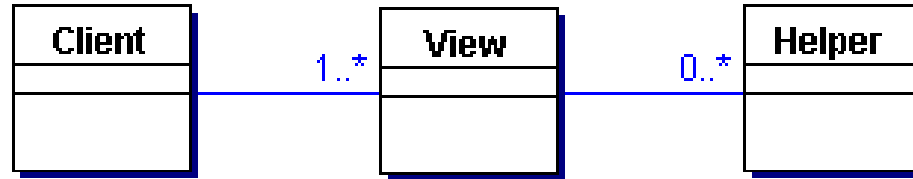
View Helper class diagram

- PetStore　J2EE

- 　　PetStore

- http://java.sun.com/j2ee
  SUN   j2ee
- http://java.sun.com/blueprints/
  SUN   J2EE BluePrints
- http://www.huihoo.com

Allen@huihoo.com

http://www.huihoo.com