

BỘ MÔN CNPM - KHOA CNTT - ĐH KHTN

J2EE PROGRAMMING TRAINING COURSE 2012 - 2.0.1

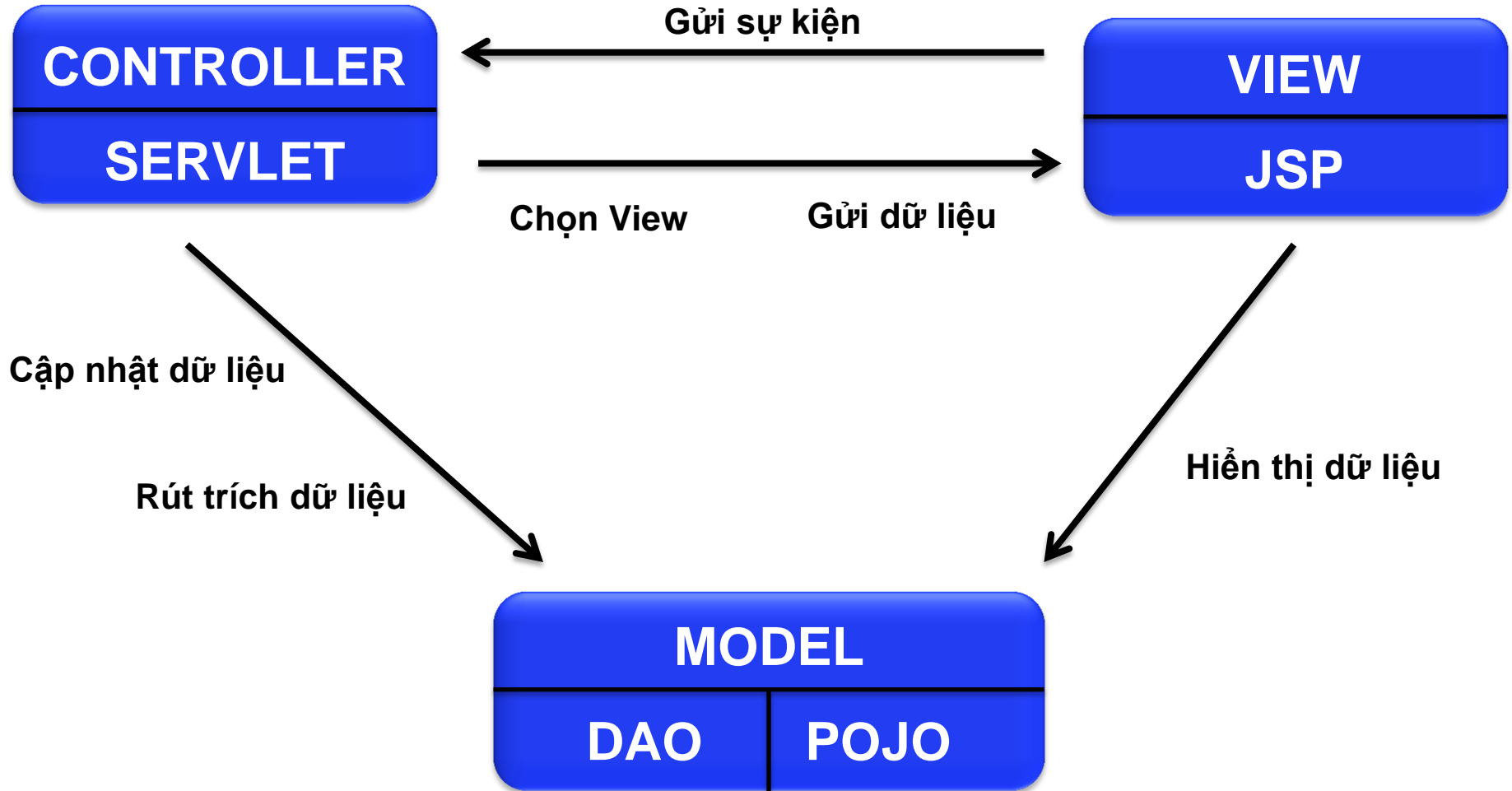
MVC2 & EXPRESSION LANGUAGE

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Nội dung trình bày

- Expression Language – MVC2
- Expression Language – Variable
- Expression Language – Java Bean
- Expression Language - Collection
- Expression Language – Request Parameter
- Expression Language – Operator

MVC 2



Controller (Servlet) gửi dữ liệu cho View (JSP)

- Request
- Session
- Application (ServletContext)

Controller (Servlet) → View (JSP)

- Controller (Servlet)

```
POJO pojo = . . .
```

```
request.setAttribute("key", pojo);
```

```
session.setAttribute("key", pojo);
```

```
application.setAttribute("key", pojo);
```

```
String url="url view";
```

```
RequestDispatcher rd =
```

```
    request.getRequestDispatcher(url);
```

```
rd.forward(request, response);
```

Controller (Servlet) → View (JSP)

- View (JSP)

- **Java Bean**

```
<jsp:useBean id="key" type="POJO"
            scope="request|session|application"/>
```

- **Scriptlet**

```
<%
```

```
POJO pojo=(POJO) request.getAttribute("Key");
```

```
POJO pojo=(POJO) session.getAttribute("Key");
```

```
POJO pojo=(POJO) session.getAttribute("Key");
```

```
%>
```

MVC 2 - VIEW

- `jsp:useBean – jsp:getProperty`
 - Khai báo dài dòng
 - Không thể truy xuất property con là Java Bean
 - Không thể truy xuất phần tử trong mảng
- Scriptlet
 - Khó bảo trì giao diện
 - Làm mất ý nghĩa tuyệt vời khi phân tách controller và view

Expression Language – MVC2

- Bean : Sach

```
private String tenSach;  
public String getTenSach() {...}
```

- Servlet

```
Sach sach = ...  
request.setAttribute("sach", sach);  
rd.forward(...)
```

- JSP

```
Tên sách:  ${sach.tenSach}
```


Expression Language – MVC2

- Bean : Sach

```
private String tenSach;  
public String getTenSach() {...}
```

- Servlet

```
ArrayList<Sach> gioHang = ...  
session.setAttribute("gioHang", sach);  
rd.forward(...)
```

- JSP

Số lượng: `${gioHang.size() }`

Sách đầu tiên: `${gioHang[0].tenSach}`

Expression Language – MVC2

- Bean : Sach

```
private String tenSach;  
private DanhMuc danhMuc;  
public String getTenSach() {...}  
public DanhMuc getDanhMuc() {...}
```

- Servlet

```
Sach sach = ...  
session.setAttribute("sach", sach);  
rd.forward(...)
```

Expression Language – MVC2

- JSP

Số lượng: `${gioHang.size() }`

Sách đầu tiên: `${gioHang[i].tenSach}`

Expression Language – Variable

- Cú pháp

`${tenBien}`

Expression Language – Variable

- Servlet

```
String thôngBao="Xin chào Nguyễn Hoàng Anh";  
request.setAttribute("thôngBao", thôngBao);  
rd.forward();
```

- JSP

```
<p>    ${thôngBao} </p>
```

- Kết quả

Xin chào Nguyễn Hoàng Anh

Expression Language – Variable

- Servlet

```
String thongBao="Xin chào Nguyễn Hoàng Anh";  
HttpSession session = request.getSession();  
session.setAttribute("thongBao", thongBao);  
rd.forward();
```

- JSP

```
<p>    ${thongBao} </p>
```

- Kết quả

Xin chào Nguyễn Hoàng Anh

Expression Language – Variable

- Servlet

```
String thôngBao="Xin chào Nguyễn Hoàng Anh";  
ServletContext application = getServletContext();  
application.setAttribute("thôngBao", thôngBao);  
rd.forward();
```

- JSP

```
<p>    ${thôngBao} </p>
```

- Kết quả

Xin chào Nguyễn Hoàng Anh

Expression Language – Variable

- Servlet

```
String thongBao1="Xin chào Nguyễn Hoàng Anh";  
String thongBao2="Xin chào Anh Hoàng Nguyễn";  
String thongBao3="Xin chào Hoàng Anh Nguyễn";  
request.setAttribute("thongBao", thongBao1);  
session.setAttribute("thongBao", thongBao2);  
application.setAttribute("thongBao", thongBao3);
```

- JSP :

```
<p>    ${thongBao} </p>
```

- Kết quả: **Xin chào Nguyễn Hoàng Anh**

Expression Language – Variable

- Cú pháp

`${requestScope.tenBien}`

`${sessionScope.tenBien}`

`${applicationScope.tenBien}`

Expression Language – Variable

- Servlet

```
String thongBao1="Xin chào Nguyễn Hoàng Anh";
```

```
String thongBao2="Xin chào Anh Hoàng Nguyễn";
```

```
String thongBao3="Xin chào Hoàng Anh Nguyễn";
```

```
request.setAttribute("thongBao", thongBao1);
```

```
session.setAttribute("thongBao", thongBao2);
```

```
application.setAttribute("thongBao", thongBao3);
```

Expression Language – Variable

- JSP:

`${requestScope.thongBao}` `
`

`${sessionScope.thongBao}` `
`

`${applicationScope.thongBao}`

- Kết quả

Nguyễn Hoàng Anh

Anh Hoàng Nguyễn

Hoàng Anh Nguyễn

Expression Language – Java Bean

- Cú pháp

```
${tenBien.tenThuocTinh}
```

```
${tenBien.tenThuocTinh.tenThuocTinh...}
```

```
${requestScope.tenBien.tenThuocTinh...}
```

```
${sessionScope.tenBien.tenThuocTinh...}
```

```
${applicationScope.tenBien.tenThuocTinh...}
```

Expression Language – Java Bean

- POJO : Sach

```
private String tenSach;  
  
public String getTenSach{return this.tenSach;}
```

- Servlet

```
Sach sach = ...  
  
request.setAttribute("sach", sach);
```

- JSP :

```
<p>    ${sach.tenSach} </p>
```

Expression Language – Java Bean

- POJO : Sach

```
private String tenSach;  
private DanhMuc danhMuc;  
  
public String getTenSach{return this.tenSach;}  
public DanhMuc getDanhMuc {return this.danhMuc;}
```

- Servlet

```
Sach sach = ...
```

```
request.setAttribute("sach", sach);
```

- JSP :

```
${sach.tenSach}    ${sach.danhMuc.tenDanhMuc}
```

Expression Language – Collection

`${tenBien[index]}` --> **Array**

`${tenBien[index].tenThuocTinh...}`

`${tenBien[Key]}` --> **Map**

`${tenBien[Key].tenThuocTinh...}`

`${requestScope...}`

`${sessionScope...}`

`${applicationScope...}`

Expression Language – Collection

- Servlet

```
ArrayList<Sach> ds = . . .  
request.setAttribute("ds", ds);
```

- JSP :

```
<p>    ${ds[0].tenSach} </p>
```

```
<p>    ${ds[0].danhMuc.tenDanhMuc} </p>
```


Expression Language – Collection

- Servlet

```
HashMap<String, Sach> ds =  
    new HashMap<String, Sach> ();  
  
ds.put(s1.getMaSach, s1);  
ds.put(s2.getMaSach, s2);  
request.setAttribute("ds", ds);
```

- JSP :

```
<p>    ${ds["S001"].tenSach} </p>
```

```
<p>    ${ds["S002"].danhMuc.tenDanhMuc} </p>
```

Expression Language – Request Parameter

- Cú pháp

`${param.inputName}`

- Ví dụ

`${param.tenDangNhap}`

`${param.email}`

`${param.dienThoai}`

Expression Language - Operator

- Arithmetic: + - * / div % mod

`${1 + 2 + 3}`

- Relational: == eq != ne < lt > gt <= le >= ge

`${var1 == var2}`

- Logical: && and || or ! Not

`${expr1 && expr2}`

Tài liệu tham khảo

- Nguyễn Hoàng Anh, Tập bài giảng môn chuyên đề Java, 2011
- Marty Hall, Tập bài giảng J2EE, 2010



HỎI VÀ ĐÁP