

Struts As a MVC Framework

Learning goals

- Understand Struts1 and How to struts work
- Can build web applications with Struts1 Framework

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Trainee's mission

Read Lecture, Reference

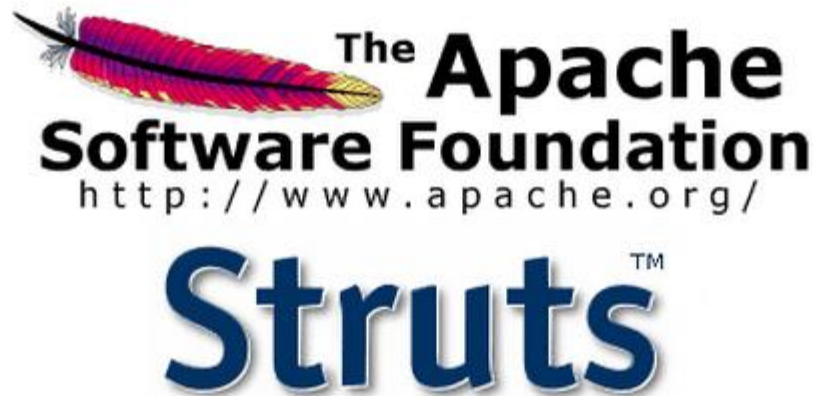
Do Exercises

Take quiz

Complete Assignment

What Are Struts1?

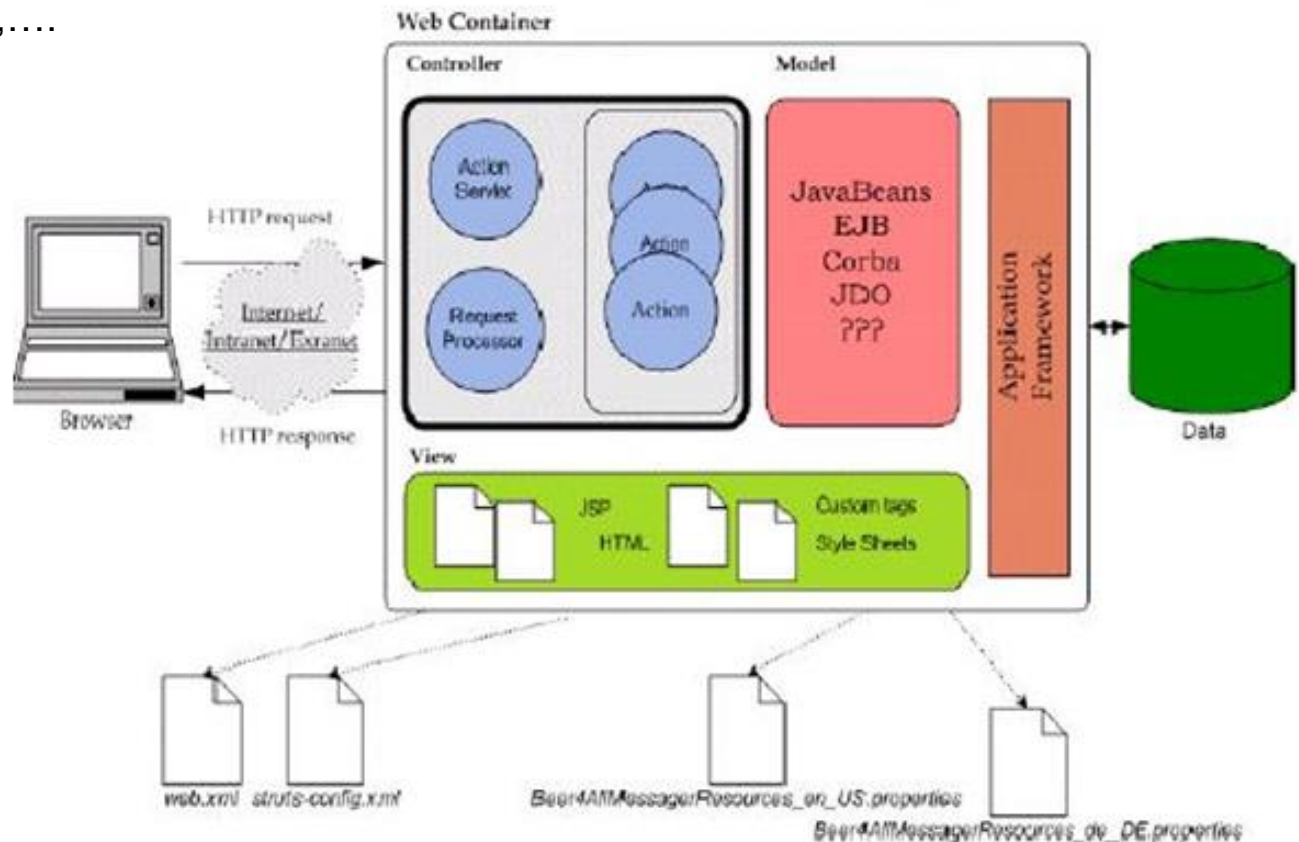
- ❑ Apache's open source web application model view controller framework project!
- ❑ Takes MVC to the next level for web applications.



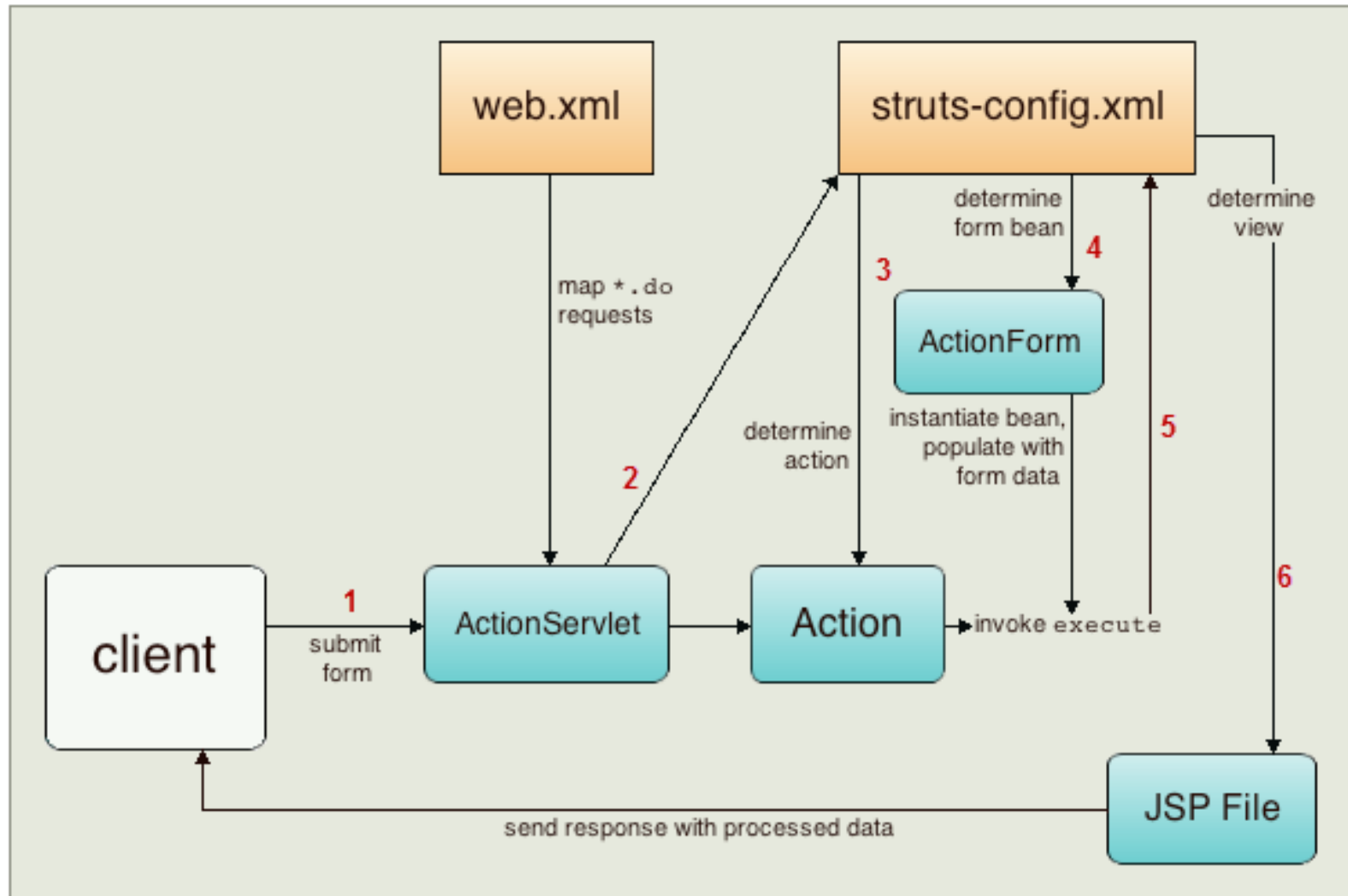
Struts 1 Architecture

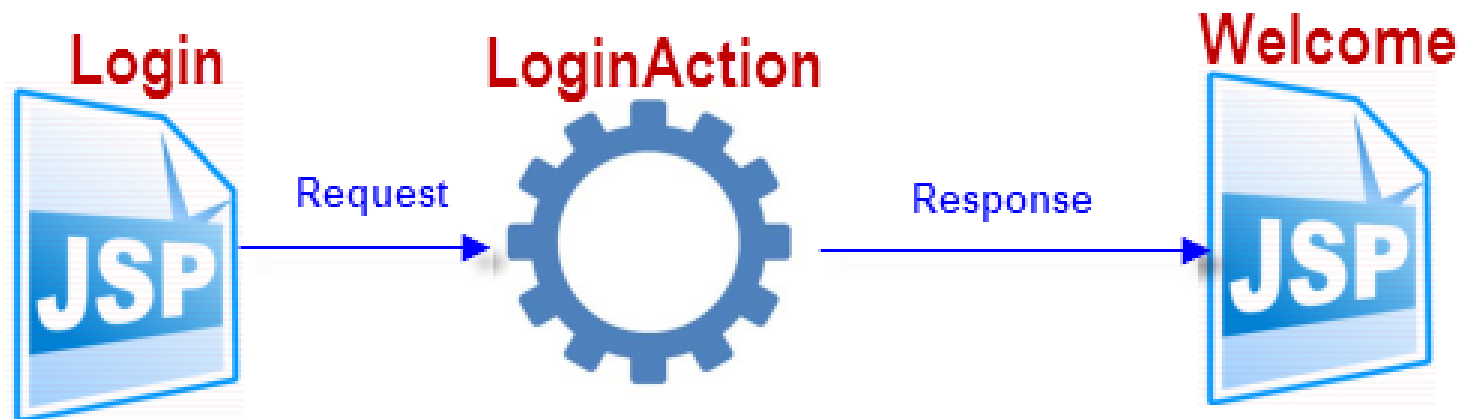
- View: JSP, HTML
- Controller: ActionServlet, Action
- Model: JavaBean, EJB,....

Struts Architecture



How to Struts1 work





Example workflow

Struts-config.xml

```
struts-config.xml
<?xml version="1.0" encoding="UTF-8"?>


<!DOCTYPE struts-config PUBLIC
    "-//Apache Software Foundation//DTD Struts Configuration 1.3//EN"
    "http://struts.apache.org/dtds/struts-config_1_3.dtd">

<struts-config>

    <form-beans>
        <form-bean name="loginForm" type="struts1.demo.form.LoginForm"/>
    </form-beans>

    <action-mappings>
        <action name="loginForm" path="/login" type="struts1.demo.action.LoginAction" input="/Login.jsp">
            <forward name="failure" path="/Login.jsp" redirect="true"/>
            <forward name="success" path="/Welcome.jsp" redirect="true"/>
        </action>
    </action-mappings>

</struts-config>
```



```

LoginAction.java X
package struts1.demo.action;
+ *author:ThuanVD3.

+import javax.servlet.http.HttpServletRequest;

public class LoginAction extends Action {
    @Override
    public ActionForward execute(ActionMapping mapping, ActionForm form,
        HttpServletRequest request, HttpServletResponse response)
        throws Exception {
1      LoginForm loginForm = (LoginForm) form;

        if (loginForm.getUserName() == null || loginForm.getPassword() == null
            || !loginForm.getUserName().equalsIgnoreCase("helios")
            || !loginForm.getPassword().equals("helios")) {
2          return mapping.findForward("failure");
        } else
            request.getSession().setAttribute("name", loginForm.getUserName());
            return mapping.findForward("success");
    }
}
    
```

```

LoginForm.java
import javax.servlet.http.HttpServletRequest;

public class LoginForm extends ActionForm {

    private String userName = null;
    private String password = null;

    public String getUserName() {
        return userName;
    }

    public void setUserName(String userName) {
        this.userName = userName;
    }

    public String getPassword() {
        return password;
    }

    public void setPassword(String password) {
        this.password = password;
    }
}

```

Diagram illustrating the structure of the `LoginForm` class, which extends `ActionForm`.

1. The class `LoginForm` extends `ActionForm`.

2. The class contains two private attributes: `userName` and `password`, both initialized to `null`.

The class also implements the following methods:

- `getUserName()`: Returns the `userName` attribute.
- `setUserName(String userName)`: Sets the `userName` attribute.
- `getPassword()`: Returns the `password` attribute.
- `setPassword(String password)`: Sets the `password` attribute.

Struts1 is a Framework which base on MVC

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