HEXAWARE

Web Application-MVC

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Session Objective

- MVC Architecture

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MVC

- **MVC** stands for Model View and Controller.
- MVC is a **design pattern** that separates the business logic, presentation logic and data.
- **Controller** acts as an interface between View and Model. Controller intercepts all the incoming requests.
- **Model** represents the state of the application i.e. data. It can also have business logic.
- **View** represents the presentation i.e. UI(User Interface).

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Advantage of MVC

- Navigation Control is centralized
- Easy to maintain the large application

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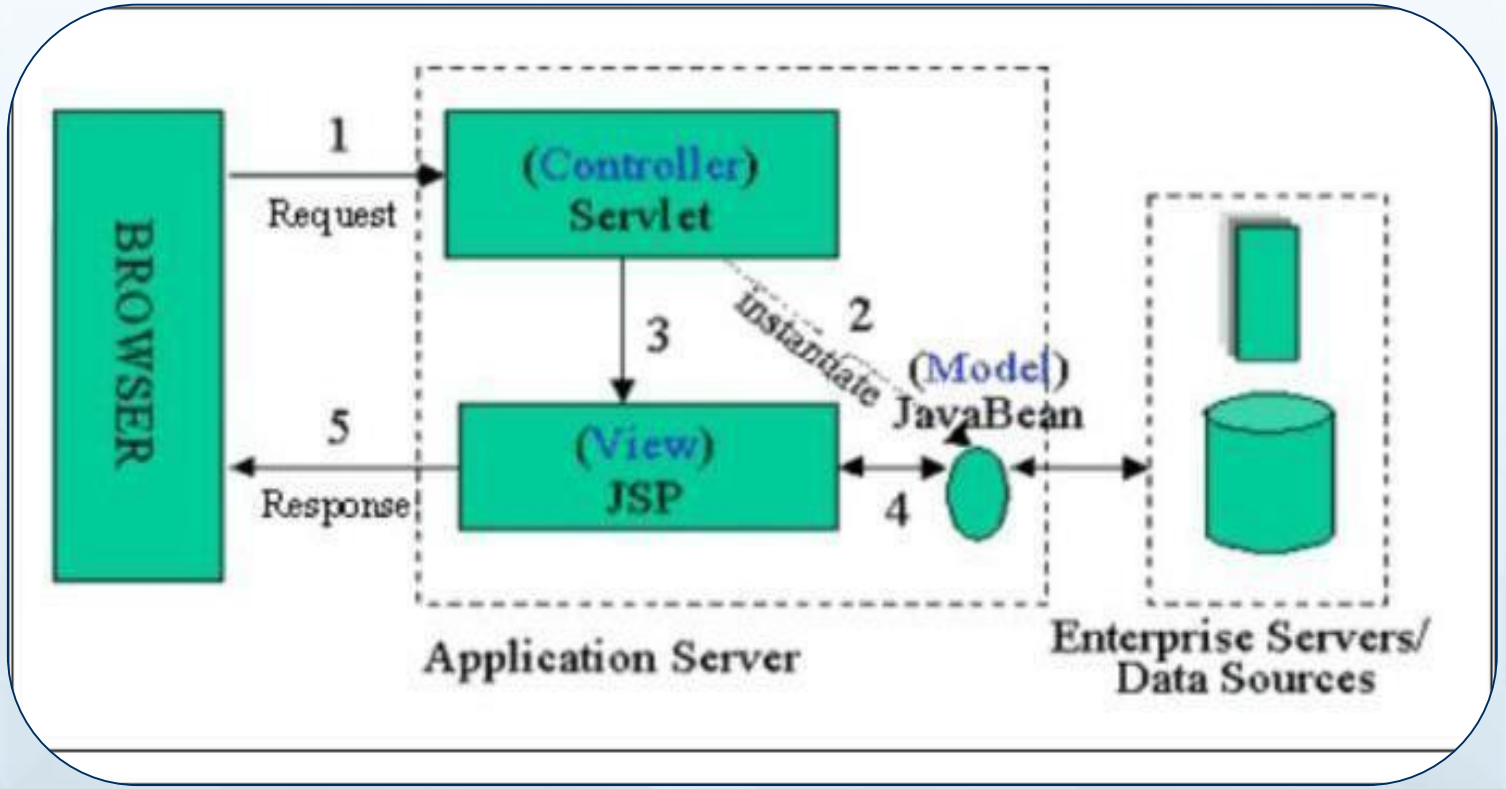
MVC Architecture



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Simple Example for MVC

- index.jsp a page that gets input from the user.
- ControllerServlet.java a servlet that acts as a controller.
- login-success.jsp and login-error.jsp files acts as view components.
- web.xml file for mapping the servlet.

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Index.jsp

```
<form action="ControllerServlet" method="post">
Name:<input type="text" name="name"><br>
Password:<input type="password" name="password"><br>
<input type="submit" value="login">
</form>
```

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ControllerServlet.java

```
package com.hexa;
import java.io.IOException;
import java.io.PrintWriter;
import javax.servlet.RequestDispatcher;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
public class ControllerServlet extends HttpServlet {
    protected void doGet(HttpServletRequest request,
HttpServletResponse response)
            throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out=response.getWriter();

        String name=request.getParameter("name");
        String password=request.getParameter("password");
```

```
 LoginBean bean=new LoginBean();
        bean.setName(name);
        bean.setPassword(password);
        request.setAttribute("bean",bean);

        boolean status=bean.validate();

if(status){
            RequestDispatcher
rd=request.getRequestDispatcher("login-success.jsp");
            rd.forward(request, response);
        }
        else{
            RequestDispatcher
rd=request.getRequestDispatcher("login-error.jsp");
            rd.forward(request, response);
        }
    }
}
```

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LoginBean.java

```
package com.hexa;
public class LoginBean {
private String name,password;

public String getName() {
    return name;
}
public void setName(String name) {
    this.name = name;
}
```

```
package com.hexa;
public String getPassword() {
    return password;
}
public void setPassword(String password) {
    this.password = password;
}
public boolean validate(){
    if(password.equals("admin")){
        return true;
    }
    else{
        return false;
    }
}
}
```

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Success and error page

Login-success.jsp

```
<%@page import="com.hexa.LoginBean"%>

<p>You are successfully logged in!</p>
<%
LoginBean
bean=(LoginBean)request.getAttribute("bean");
out.print("Welcome, "+bean.getName());
%>
```

Login-error.jsp

```
<p>Sorry! username or password
error</p>
<%@ include file="index.jsp" %>
```

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Delighted Customers

Thank you

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