Java Servlet Exception Handling

When a Java Servlet throws an exception the container will search for the web.xml file which contains the configuration about the error handling such as the location of the error page and the error code or exception type associated with it.

List of Request Attributes

1. javax.servlet.error.status\_code
   * Data type: int
2. javax.servlet.error.exception\_type
   * Data type: Class
3. javax.servlet.error.message
   * Data type: String
4. javax.servlet.error.request\_uri
   * Data type: String
5. javax.servlet.error.exception
   * Data type: Throwable
6. javax.servlet.error.servlet\_name
   * Data type: String

Sample web.xml format

<?xml version="1.0" encoding="UTF-8"?>

<web-app xmlns="http://java.sun.com/xml/ns/javaee" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation="http://java.sun.com/xml/ns/javaee http://java.sun.com/xml/ns/javaee/web-app\_3\_0.xsd" version="3.0">

<display-name>***Title of the page****</*display-name>

<!-- Error Code Related Error Pages -->

<error-page>

<error-code>***Error Code***</error-code>

<location>***Location of the error page***</location>

</error-page>

<!-- Exception Type Related Error Pages -->

<error-page>

<exception-type>***Java Class***</exception-type>

<location>***Location of the error page***</location>

</error-page>

</web-app>

Sample java class format

import java.io.IOException;

import java.io.PrintWriter;

import javax.servlet.ServletException;

import javax.servlet.annotation.WebServlet;

import javax.servlet.http.HttpServlet;

import javax.servlet.http.HttpServletRequest;

import javax.servlet.http.HttpServletResponse;

@WebServlet("Location of error page")

public class ClassName extends HttpServlet {

private static final long serialVersionUID = 1L;

//Get request Exception Handler

public void doGet(HttpServletRequest request, HttpServletResponse response) throws IOException, ServletException {

errorProcessMethod(request, response);

}

//Post request Exception Handler

public void doPost(HttpServletRequest request,

HttpServletResponse response) throws ServletException, IOException {

errorProcessMethod(request, response);

}

public void errorProcessMethod(HttpServletRequest request, HttpServletResponse response) throws IOException, ServletException {

//Analyze Exceptions

Integer statusCode = (Integer) request.getAttribute("javax.servlet.error.status\_code");

String servletName = (String) request.getAttribute("javax.servlet.error.servlet\_name");

// Data about the exception raised

Throwable throwable = (Throwable) request.getAttribute("javax.servlet.error.exception");

if (servletName == null) {

servletName = "Unknown";

}

// Data about URL calling the servlet

String requestUri = (String) request.getAttribute("javax.servlet.error.request\_uri");

if (requestUri == null) {

requestUri = "Unknown";

}

//Response content type

response.setContentType("text/html");

//Print response

PrintWriter out = response.getWriter();

String title = "Error/Exception Information";

String docType = "<!DOCTYPE html>\n";

out.println(docType

+ "<html>\n" + "<head><meta http-equiv=\"Content-Type\" content=\"text/html; charset=UTF-8\"><title>" + title + "</title></head>\n" + "<body>");

//print content here

out.println("</body>\n</html>");

out.close();

}

}

References:

Batra, Y. (n.d.). Java Servlet Exception Handling Example. Retrieved from <https://examples.javacodegeeks.com/enterprise-java/servlet/java-servlet-exception-handling-example/>

Fusion Middleware Developing Web Applications, Servlets, and JSPs for Oracle WebLogic Server. (2011, April 13). Retrieved from <https://docs.oracle.com/cd/E21764_01/web.1111/e13712/web_xml.htm#WBAPP519>

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