

RequestDispatcher

RequestDispatcher

- RequestDispatcher is an interface that provides the facility to forward a request to another resource or include the content of another resource. RequestDispatcher provides a way to call another resource from a servlet. Another resource can be servlet, jsp or html.

- This will return a `RequestDispatcher` object that acts as a wrapper for the resource located at the given path.
- A `RequestDispatcher` object can be used to forward a request to the resource or to include the resource in a response.
- Forwarding a request as described above only works for other resources (servlets and JSP pages).
- The pathname specified may be relative, although it cannot extend outside the current servlet context.
- If the path begins with a `"/` it is interpreted as relative to the current context root.
- This method returns null if the servlet container cannot return a `RequestDispatcher`.

Methods

- `forward(ServletRequest request,ServletResponse response)`: This method forwards a request from a servlet to another resource on the server.
 - Syntax: `public void forward(ServletRequest request,ServletResponse response)throws ServletException, IOException`
- `include(ServletRequest request,ServletResponse response)`: This method includes the content of a resource in the response.
 - Syntax: `public void include(ServletRequest request,ServletResponse response)throws ServletException, IOException`

Get Object

- RequestDispatcher requestDispatcher = request.getRequestDispatcher("/another resource");
- requestDispatcher.forward(request, response);
(or)
- requestDispatcher.include(request, response);

SendRedirect

- `sendRedirect()` is the method of `HttpServletResponse` interface which is used to redirect response to another resource.
- **Syntax: `response.sendRedirect(relative url);`**

Servlets and Exceptions

EXCEPTION IN THE CODE

- Some exceptions can be handled by adding try-catch blocks into the code....

```
String num = req.getParameter("number");
try
{
    Integer i = new Integer(num);
    writer.println("You entered the number " + i.intValue());
}
catch (java.lang.NumberFormatException e)
{
    writer.println(" Number is not convertible: " + num);
}
```


Specify exception in web.xml

```
<error-page>
  <exception-type>
    java.lang.NumberFormatException
  </exception-type>
  <location>
    /WEB-INF/BadNumber.html
  </location>
</error-page>
```

Specify exception in web.xml

```
<error-page>  
  <error-code>  
    404  
  </exception-type>  
  <location>  
    /WEB-INF/NotFound.html  
  </location>  
</error-page>
```

ErrorCode Reference

- <https://tomcat.apache.org/tomcat-5.5-doc/servletapi/javax/servlet/http/HttpServletResponse.html>

sendError()

```
if (req.getParameter("param") == null)
{
    // res.sendError(res.SC_BAD_REQUEST, "param needed");
    OR
    res.sendError(401, "param needed");
}
```