SERVLETS AND JSP COURSE

RESPONSE HEADERS WITH SERVLETS

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Hello, Ubaldo Acosta greets you. Welcome again. I hope you're ready to start with this lesson.

We will study the topic of Handling Response Headers using the Servlets API.

Are you ready? OK let's go!

RESPONSE HEADER WITH SERVLETS

•Response headers are used to indicate to the Web browser how to behave in response to a response from the Web server.

•A common example is to generate Excel sheets, PDF's, Audio, Video, etc., instead of just responding with text.

•MIME types (Multipurpose Internet Mail Extensions) are used to indicate the type of response.

•The MIME types are a set of specifications with the aim of exchanging files through the Internet such as text, audio, video, among other types.

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We will review in this lesson the response headers in the Servlets.

Previously we have already reviewed the topic of the headers but in an HTTP request, and unlike them, the response headers will allow us to tell the web browser how to behave before the response from our web server to the end user.

A common example is that instead of showing only HTML code, we can generate code that finally the browser will interpret as a different document such as a document in Excel, a PDF document, also elements such as Audio, Video etc.

To indicate the type of response, what is known as the MIME types is used. MIME is the acronym for (Multipurpose Internet Mail Extensions). The MIME types are a set of specifications with a specific objective, which is to exchange files through the Internet using the HTTP protocol and these types of files can be text, audio, video or any other type of information, either at the of plain text or binary information (the original file).

MOST COMMON EXAMPLES OF MIME TYPES

application/msword	Microsoft Word document
application/pdf	Acrobat (.pdf) file
application/vnd.ms-excel	Excel spreadsheet
application/vnd.ms-powerpoint	Powerpoint presentation
application/zip	Zip archive
audio/x-wav	Microsoft Windows sound file
text/css	HTML cascading style sheet
text/html	HTML document
text/xml	XML document
image/gif	GIF image
image/jpeg	JPEG image
image/png	PNG image
video/mpeg	MPEG video clip
video/quicktime	QuickTime video clip

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There is a fairly broad list of MIME types, in this case we are listing only the most used.

We are going to review an example later to learn how to use these MIME types. To start we have to specify the name of the MIME type, for example, if our web server has to show as a result a Microsoft Word document, what we have to do is specify from the server side the type that we will send to our client, ie , the MIME type application/msword.

We can see the list, which will serve to indicate the MIME type that we will send to our client and so the client will know what type of document is the one that will be displayed. The browser will display the documents directly or as the case may be, it will request to open the document with some specific application of the type of data that we are sending to the client. Examples of documents can be Word, PDF, Excel documents, PowerPoint presentations, ZIP files, audio documents, style sheets, HTML documents, here it should be noted that default text/html is the type of response that our Servlet throws . We can also generate XML code, images, videos among others.

As we have mentioned the list that handles MIME types is much broader, in this case it is only show the most common to be able to specify some types that we can use when responding from our web server to our client.

SERVLETS API WHEN USING RESPONSE HEADERS

Methods to Set Headers Values:

response.setHeader (String headname, String headValue), setDateHeader and setIntHeader set a header, if it already exists replaces it

response.addHeader, addDateHeader and addIntHeader add new values instead of replacing them

Most common methods to establish values of Headers:

- ✓ setContentType (The MIME table is used to define its value)
- ✓ setContentLenght
- ✓ addCookie
- ✓ sendRedirect

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Now we will study how to use Servlets to add these MIME types in our response.

To process the headers that came in our request, we use the request object and the getHeader method.

What we are going to do is use some of these methods response.setHeader (String headName, String headValue), we can use the setHeader method through the response object.

To add headers to our response we will use the response object and the setHeader method. this method has two parameters the first parameter is the headname and the second parameter is the head value. Similar to this setHeader method, there are the setDateHeader and setIntHeader methods, the difference between these methods is that we are adding Headers of type Date or type Int respectively. This will allow us not to do a conversion of data types, but implicitly converts to a Date type or an Int type depending on the type of header we want to add to our response.

Now, these methods set if there is already a header with the same name what it does is replace the value with the new value that we are indicating, if we do not want to replace this value what we have to do is use the addHeader method or similar ones addDateHeader and addIntHeader these methods add a new value instead of replacing existing ones.

We also have other very common methods used to specify new values in our response we can use the setContentType method which is used to specify the MIME type according to the table that we saw earlier there are also the methods setContentLenght, addCookie and sendRedirect as we have seen above, all these methods have to do with our HTTP response.

MOST COMMON RESPONSE HEADERS

- **Cache-Control and Pragma**: Are used to control the cache

- **Content-Encoding**: Indicates the encoding of the document

- **Content-Length**: Indicates the number of bytes in the response

- **Content-Type**: Indicates the MIME type to respond

- **Expires**: Indicates the time in which the document is considered expired

- **Last-Modified**: Indicates the time in which the document was modified

- **Refresh**: Indicates the seconds in which the browser reloads the page

- **Set-Cookie**: Add a cookie to the browser

- **WWW-Authenticate**: Indicates the type of authentication

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As we have seen previously, the MIME type will allow us to indicate the type of document that we are going to display in the Web browser. The MIME type must be specified with the Content-Type header, so what we are going to do is combine the methods described above to be able to modify the headers and in case we want to modify the MIME type we have to use the Content-Type header to specify the new type of document that we are going to display in the response of the web server.

There are more headboards that are commonly used, this type of Cache-Control and Pragma headers are used to control the cache and it is also combined with the header of Expires and by combining these three headers what we are going to do is indicate our browser web that will not cache our Servlets or JSPs since the objective of the Servlets or JSPs is that they generate dynamic code and therefore this content should not be stored in the form of a cache in our client in the web browser, later we will see an exercise to observe the use of these headers.

There are also other types of headers such as Content-Enconding which indicates the encoding of the document that we are displaying and also the Content-Length header to specify the size of the content to be sent, not in all cases it applies but in the case that we are sending binary information such as an audio file or a video file it is common that we use this header.

The Last-Modified header indicates the time the document was last modified.

The header of Refresh indicates the seconds in which the browser should reload the page shown, this header is usually very useful in case we need to update from time to time the pages that our client is viewing and thus update the information automatically .

The head of Set-Cookie adds a cookie to our web browser, the subject of cookies we will study later.

And the WWW-Authenticate header indicates the type of authentication that will be used in our web application. Next we are going to put into practice the use of headers using the Servlets API.

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