JSP - Http Status Codes

In this chapter, we will discuss the Http Status Codes in JSP. The format of the HTTP request and the HTTP response messages are similar and will have the following structure −

- An initial status line + CRLF (Carriage Return + Line Feed ie. New Line)
- Zero or more header lines + CRLF
- A blank line ie. a CRLF
- An optional message body like file, query data or query output.

For example, a server response header looks like the following −

```
HTTP/1.1 200 OK
Content-Type: text/html
Header2: ...
...
HeaderN: ...
  (Blank Line)
<!doctype ...>

<html>
  <head>...</head>

  <body>
    ...
  </body>
</html>
```

The status line consists of the **HTTP version (HTTP/1.1 in the example)**, a status code (200 in the example), and a very short message corresponding to the status code **(OK in the example)**.

Following table lists out the HTTP status codes and associated messages that might be returned from the Web Server −

Code	Message	Description
100	Continue	Only a part of the request has been received by the server, but as long as it has not been rejected, the client should continue with the request
101	Switching Protocols	The server switches protocol.
200	OK	The request is OK
201	Created	The request is complete, and a new resource is created
202	Accepted	The request is accepted for processing, but the processing is not complete.
203	Non-authoritative Information	
204	No Content	
205	Reset Content	
206	Partial Content	
300	Multiple Choices	A link list; the user can select a link and go to that location. Maximum five addresses.
301	Moved Permanently	The requested page has moved to a new url.

302	Found	The requested page has moved temporarily to a new url.
303	See Other	The requested page can be found under a different url.
304	Not Modified	
305	Use Proxy	
306	*Unused*	This code was used in a previous version. It is no longer used, but the code is reserved.
307	Temporary Redirect	The requested page has moved temporarily to a new url.
400	Bad Request	The server did not understand the request.
401	Unauthorized	The requested page needs a username and a password.
402	Payment Required	*You can not use this code yet.*
403	Forbidden	Access is forbidden to the requested page
404	Not Found	The server can not find the requested page.
405	Method Not Allowed	The method specified in the request is not allowed.
406	Not Acceptable	The server can only generate a response that is not accepted by the client.
407	Proxy Authentication Required	You must authenticate with a proxy server before this request can be served.
408	Request Timeout	The request took longer than the server was prepared to wait.
409	Conflict	The request could not be completed because of a conflict.
410	Gone	The requested page is no longer available.
411	Length Required	The "Content-Length" is not defined. The server will not accept the request without it.
412	Precondition Failed	The precondition given in the request evaluated to false by the server.
413	Request Entity Too Large	The server will not accept the request, because the request entity is too large.
414	Request-url Too Long	The server will not accept the request, because the url is too long. This occurs when you convert a "post" request to a "get" request with a long query information.
415	Unsupported Media Type	The server will not accept the request, because the media type is not supported.
417	Expectation Failed	
500	Internal Server Error	The request was not completed. The server met an unexpected condition.
501	Not Implemented	The request was not completed. The server did not support the functionality required.
502	Bad Gateway	The request was not completed. The server received an invalid response from the upstream server.
503	Service Unavailable	The request was not completed. The server is temporarily overloading or down.
504	Gateway Timeout	The gateway has timed out.

505	HTTP Version Not Supported	The server does not support the **"http protocol"** version.

Methods to Set HTTP Status Code

Following methods can be used to set the HTTP Status Code in your servlet program. These methods are available with the *HttpServletResponse* object.

S.No.	Method & Description
1	**public void setStatus (int statusCode)** This method sets an arbitrary status code. The setStatus method takes an int (the status code) as an argument. If your response includes a special status code and a document, be sure to call **setStatus** before actually returning any of the content with the *PrintWriter*.
2	**public void sendRedirect(String url)** This method generates a 302 response along with a *Location* header giving the URL of the new document.
3	**public void sendError(int code, String message)** This method sends a status code (usually 404) along with a short message that is automatically formatted inside an HTML document and sent to the client.

HTTP Status Code Example

Following example shows how a 407 error code is sent to the client browser. After this, the browser would show you "**Need authentication!!!**" message.

```
<html>
  <head>
    <title>Setting HTTP Status Code</title>
  </head>

  <body>
    <%
      // Set error code and reason.
      response.sendError(407, "Need authentication!!!" );
    %>
  </body>
</html>
```

You will receive the following output −

HTTP Status 407 - Need authentication!!!

type Status report

message Need authentication!!!

description The client must first authenticate itself with the proxy (Need authentication!!!).

Apache Tomcat/5.5.29

To become more comfortable with HTTP status codes, try to set different status codes and their description.