

How to send response headers from proxy to browser?

Source: <http://coding.derkeiler.com/Archive/Java/comp.lang.java.programmer/2006-03/msg02918.html>

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This question's got no replies on forum.java.sun.com through its full four days and three nights life. The proxy server intercepts every request from the browser and redirect it to www.yahoo.com. It simply discards original request. After connecting to yahoo.com, it sends the received response to the browser, displaying the first part of the yahoo page. However, as described in the comment on the code below, it seems the proxy can't send the response headers to the browser, it only sends document content. What should we do to send the response headers from proxy?

This program has no practical usefulness. It's only an exercise for implementing proxy.

```
/* SimpleProxy.java
 * redirect every request from browser to www.yahoo.com
 */
import java.net.*;
import java.io.*;
import java.util.*;

class SimpleProxy{
    ServerSocket pxSrvSocket;
    Socket clientSocket;
    URL remoteUrl;
    URLConnection remoteConnection;
    BufferedReader readClient, readRemote;
    PrintWriter writeClient;
    String clientReq, remoteRes, resphName, resphValue, resphStr, resMsg;
    Map<String,List<String>> respHdrs; // response headers
    List<String> values; // header values
    int len;

    public SimpleProxy(){
        try{
            pxSrvSocket = new ServerSocket(9999);
```

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```
clientSocket = pxSrvSocket.accept();
System.out.println("browser connected to this proxy");
readClient = new BufferedReader
(new InputStreamReader(clientSocket.getInputStream()));
writeClient
= new PrintWriter(clientSocket.getOutputStream(), true);

// setup connection and request headers
// (from Firefox 1.5.0.1 on Linux)
remoteUrl = new URL("http://www.yahoo.com/");
remoteConnection = remoteUrl.openConnection();
remoteConnection.setAllowUserInteraction(true);
remoteConnection.setDoInput(true);
remoteConnection.setDoOutput(true);
//remoteConnection.setIfModifiedSince(0L);
//remoteConnection.setUseCaches(true);

((HttpURLConnection)remoteConnection).setRequestMethod("GET");

remoteConnection.setRequestProperty("Host", "www.yahoo.com");
remoteConnection.setRequestProperty("User-Agent",
"User-Agent: Mozilla/5.0 (X11; U; Linux i686; ja; rv:1.8.0.1)
Gecko/20060124 Firefox/1.5.0.1");
remoteConnection.setRequestProperty("Accept",
"text/xml,application/xml,application/xhtml+xml,text/html;q=0.9,text/plain;q=0.8,image/png,*/*;q=0.5");
remoteConnection.setRequestProperty("Accept-Language",
"ja,en-us;q=0.7,en;q=0.3");
remoteConnection.setRequestProperty("Accept-Encoding",
"gzip,deflate");
remoteConnection.setRequestProperty("Accept-Charset",
"ISO-8859-1,utf-8;q=0.7,*;q=0.7");
remoteConnection.setRequestProperty("Keep-Alive", "300");
remoteConnection.setRequestProperty("Proxy-Connection",
"keep-alive");

remoteConnection.connect();
System.out.println
("remote connection established : " +
remoteConnection.toString());
readRemote = new BufferedReader
(new InputStreamReader(remoteConnection.getInputStream()));

// dump original request from browser
while ((clientReq = readClient.readLine()).length() > 0){
System.out.println("read from browser : " + clientReq);
}

/** if we uncomment this part, program doesn't work, only blank screen
**/

// get response headers
```

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```
respHdrs = remoteConnection.getHeaderFields();  
Set<String> names = respHdrs.keySet();  
  
// first, write response status line  
resphStr = "";  
values = respHdrs.get(null);  
for (String val : values){  
resphStr += val + ","; // e.g. HTTP/1.1 200 OK  
}  
len = resphStr.length();  
if (resphStr.charAt(len - 1) == ','){ // trim last ','  
resphStr = resphStr.substring(0, len - 1);  
}  
System.out.println("resp hdr from remote: " + resphStr);  
writeClient.println(resphStr);  
// names.remove(null); // UnsupportedOperationException  
  
// next, other response headers  
for (String name : names){  
if (name != null){  
values = respHdrs.get(name);  
resphStr = name + ": ";  
for (String val : values){  
resphStr += val + ",";  
}  
len = resphStr.length();  
if (resphStr.charAt(len - 1) == ','){ // trim last ','  
resphStr = resphStr.substring(0, len - 1);  
}  
System.out.println("resp hdr from remote: " + resphStr);  
writeClient.println(resphStr);  
}  
}  
System.out.println();  
writeClient.println(); // a blank line  
  
*** end response headers part ***/  
  
// get and write document contents -- this part works normally  
// if we comment-out the above part  
while((remoteRes = readRemote.readLine()).length() > 0){  
writeClient.println(remoteRes);  
System.out.println("response from remote : " + remoteRes);  
}  
  
writeClient.close();  
clientSocket.close();  
pxSrvSocket.close();  
}catch (IOException e){  
e.printStackTrace();  
}
```

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```
public static void main(String a[]){  
new SimpleProxy();
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