

## 1. Ajax Security

- 1) Local PC가 아닌 원격지의 Server로부터 JavaScript Code가 loading되기 때문에 보안과 관련된 문제가 발생할 수 있다.
- 2) 만일 JavaScript Code가 local PC에 있는 중요 file을 지우도록 programming 되어 있다면 심각한 문제가 발생할 수 있다.
- 3) Ajax 역시 보안과 관련된 제약 사항을 갖고 있는데, 그것은 바로 JavaScript가 loading된 Server로만 접속할 수 있다.
- 4) 이것을 'Server of Origin'이라고 한다.

예) <http://www.abc.com/test.jsp>

- <http://www.abc.com/sample.jsp> --> 가능
- <https://www.abc.com/test.jsp> --> 불가능(https 때문)
- <http://www.abc.com:60000/test.jsp> --> 불가능(#port 때문)
- <http://file.abc.com/test.jsp> --> 불가능(file.abc 때문)
- <http://www.xyz.com/test.jsp> --> 아예 불가능(다른 도메인)

## 5) Demo

```
[testConnect.html]
<!DOCTYPE html>
<html lang="ko">
  <head>
    <meta charset="utf-8">
    <title>외부 연결 테스트</title>
    <script>
      var xmlObj;
      window.onload = function() {
        xmlObj = new XMLHttpRequest();
        xmlObj.open("GET", "http://www.naver.com", true);
        xmlObj.onreadystatechange = loadContent;
        xmlObj.send(null);
      }
      function loadContent() {
        if (xmlObj.readyState == 4) {
          var result = document.getElementById("result");
          if (xmlObj.status == 200) {
            result.innerHTML = "로딩 성공";
          } else {
            result.innerHTML = "로딩 실패: " + xmlObj.status;
          }
        }
      }
    </script>
  </head>
  <body>
    <div id="result"></div>
  </body>
</html>
```

--> 결과 : 사용 권한이 없다고 나옴.

Access to XMLHttpRequest at 'https://www.naver.com/' (redirected from 'http://www.naver.com/') from origin 'null' has been blocked by CORS policy: No 'Access-Control-Allow-Origin' header is present on the requested resource.

## 2. Proxy를 이용한 외부 Site 접속 문제 해결

- 1) 요청 Page --> 외부 Site --> 불가능  
-따라서 요청 Page --> Proxy --> 외부 Site

2) JSP나 Servlet과 같은 Java 계열을 사용하는 경우에는 Jakarta Project 사이트에서 만들어 배포하는 HttpClient API를 사용하여 Proxy를 구현할 수 있다.

-만일 다음과 같은 RSS를 읽어오고 싶을 때

<http://rss.etnews.com/Section901.xml>

## 3. 준비물

- 1) HttpClient API - commons-httpclient-3.1.zip

-Home : <http://hc.apache.org/httpclient-3.x/>

-Download <http://archive.apache.org/dist/httpcomponents/commons-httpclient/binary/>

```
63 2)Commons logging - commons-loggin-1.1.3-bin.zip
64   -Home : http://commons.apache.org/proper/commons-logging/
65   -Download : http://archive.apache.org/dist/commons/logging/binaries/
66 3)Commons codec - common-codec-1.5-bin.zip
67   -Home : http://commons.apache.org/proper/commons-codec/index.html
68   -Download : http://archive.apache.org/dist/commons/codec/binaries/
69
70
```

#### 71 4. Proxy Source

```
72 [proxy_etnews.jsp]
73 <%@ page language="java" contentType="text/html; charset=UTF-8" pageEncoding="UTF-8"%>
74 <%@ page import = "org.apache.commons.httpclient.HttpClient" %>
75 <%@ page import = "org.apache.commons.httpclient.methods.GetMethod" %>
76 <%@ page import = "org.apache.commons.httpclient.HttpStatus" %>
77 <%
78     String url = "http://rss.etnews.com/Section901.xml";
79     HttpClient client = new HttpClient();
80     GetMethod method = new GetMethod(url);
81     try {
82         int statusCode = client.executeMethod(method);
83         out.clearBuffer();
84         response.reset();
85         response.setStatus(statusCode);
86         if (statusCode == HttpStatus.SC_OK) {
87             String result = method.getResponseBodyAsString();
88             response.setContentType("text/xml; charset=utf-8");
89             out.println(new String(result.getBytes("ISO8859_1"), "utf-8"));
90         }
91     } finally {
92         if (method != null) method.releaseConnection();
93     }
94 %>
```

#### 97 5. Client Source

```
98 [etnews_reader.html]
99 <!DOCTYPE html>
100 <html>
101     <head>
102         <meta charset="UTF-8">
103         <title>Insert title here</title>
104         <link rel="stylesheet" type="text/css" href="css/style.css" />
105         <script src="js/jquery-3.2.1.min.js"></script>
106         <script>
107             $(document).ready(function(){
108                 $('input').click(function(){
109                     $.ajax({
110                         url : "proxy_etnews.jsp",
111                         type : "get",
112                         dataType : "xml",
113                         success : function(xml){
114                             myparser(xml);
115                         }
116                     });
117                 });
118             });
119
120             function displayHeader(){
121                 var str = "<h2>전자신문 오늘의 뉴스</h2>";
122                 str += "<table><thead><tr>";
123                 str += "<th>번호</th><th>기사
124                     제목</th><th>기자이름</th><th>일시</th></tr></thead>";
125                 str += "<tbody></tbody>";
126                 str += "</table>";
127                 $('#listView').html(str);
128             }
129
```

```

129     function myparser(xml){
130         displayHeader();
131         var xmldoc = xml;
132         var str = "";
133         var array = xmldoc.getElementsByTagName('item');
134         for(var i = 0 ; i < array.length ; i++){
135             str += "<tr><td>" + (i+1) + "</td>";
136             var item = array.item(i);
137             var title = item.getElementsByTagName('title')[0].firstChild.nodeValue;
138             var author = item.getElementsByTagName('author')[0].firstChild.nodeValue;
139             var pubDate = item.getElementsByTagName('pubDate')[0].firstChild.nodeValue;
140             var guid = item.getElementsByTagName('guid')[0].firstChild.nodeValue;
141             str += "<td><a href='#' onclick='openPage(" + guid + ")'>" + title +
142                 "</a></td><td>" +
143                 author + "</td>" + "<td>" + pubDate + "</td></tr>";
144         }
145         $('tbody').html(str);
146     }
147     function openPage(url){
148         var url = "http://www.etnews.com/" + url;
149         window.open(url, "win1", "width=500,height=700");
150     }
151 </script>
152 </head>
153 <body>
154     <input type='button' value="전자신문 오늘의 뉴스 보기" /><br />
155     <div id="listView"></div>
156 </body>
157 </html>
158
159 [css/style.css]
160 @CHARSET "UTF-8";
161 h2{
162     text-align:center
163 }
164 table{
165     margin:auto;
166     width:600px;
167     border-collapse : collapse;
168 }
169 th, td{
170     border : 1px solid black;
171 }
172 th{
173     background-color:yellow;color:darkblue;
174 }
175 td{
176     text-align:center;
177 }
178
179

```

## 6. Naver Movie Search Service

1) Naver Developers에서 Application 등록하기

-<https://developers.naver.com/main/>

2) movie.jsp

```

185 <%@ page language="java" contentType="text/html; charset=UTF-8"
186     pageEncoding="UTF-8" trimDirectiveWhitespaces="true" errorPage="error.jsp" %>
187 <%@ page import="java.net.URL, java.net.HttpURLConnection" %>
188 <%@ page import="java.io.BufferedReader, java.io.InputStreamReader" %>
189 <%
190     request.setCharacterEncoding("utf-8");
191     String query = request.getParameter("query");
192     int yearFrom = 1900;
193     String from = request.getParameter("from");
194     if(from != null) yearFrom = Integer.parseInt(from);

```

```

195     int yearTo = 2018;
196     String to = request.getParameter("to");
197     if(to != null) yearTo = Integer.parseInt(to);
198
199     String clientId = "zqG4DoQr7ZIkSmLfkqPt";
200     String clientSecret = "CdtZAKCvaX";
201
202     String apiURL = "https://openapi.naver.com/v1/search/movie.json?query=" +
203         query; // + "&country=KR&yearfrom=" + yearFrom +
204         //"&yearfrom=" + yearTo;
205     URL url = new URL(apiURL);
206     HttpURLConnection con = (HttpURLConnection)url.openConnection();
207     con.setRequestMethod("GET");
208     con.setRequestProperty("X-Naver-Client-Id", clientId);
209     con.setRequestProperty("X-Naver-Client-Secret", clientSecret);
210     int responseCode = con.getResponseCode();
211     BufferedReader br;
212     if(responseCode==200) { // 정상 호출
213         br = new BufferedReader(new InputStreamReader(con.getInputStream()));
214     } else { // 에러 발생
215         br = new BufferedReader(new InputStreamReader(con.getErrorStream()));
216     }
217     String inputLine;
218     StringBuffer sb = new StringBuffer();
219     while ((inputLine = br.readLine()) != null) {
220         sb.append(inputLine);
221     }
222     br.close();
223     out.print(sb.toString());
224 %>
225
226 3)movie.html
227 <!DOCTYPE html>
228 <html lang="ko">
229 <head>
230     <meta charset='utf-8' />
231     <script src="js/jquery-1.12.4.js"></script>
232     <script>
233         $(function(){
234             $("input[type='button']").click(function(){
235                 $.ajax({
236                     url : "movie.jsp?query=" +
237                         encodeURIComponent(encodeURIComponent($('#query').val())),
238                     type : 'get',
239                     success : function(data){
240                         var obj = JSON.parse(data);
241                         var str = "<table border='1'><thead><tr>" +
242                             "<th>일련번호</th><th>제목</th>" +
243                             "<th>포스터</th><th>감독</th><th>배우</th></tr>" +
244                             "</thead><tbody>";
245                         for(var i = 0 ; i < obj.items.length; i++){
246                             var movie = obj.items[i];
247                             str += "<tr>";
248                             str += "<td>" + (i + 1) + "</td>";
249                             str += "<td><a href='" + movie.link + "' target='_blank'>" + movie.title +
250                                 "</a></td>";
251                             str += "<td><img src='" + movie.image + "' width='150' height='200'
252                                 /></td>";
253                             str += "<td>" + movie.director + "</td>";
254                             str += "<td>" + movie.actor + "</td>";
255                             str += "</tr>";
256                         }
257                         str += "</tbody></table>";
258                         $('#result').html(str);
259                     },
260                     error : function(err){ alert(err);}
261                 });

```

```
260         });
261     });
262 </script>
263 </head>
264 <body>
265 영화제목 : <input type="text" id="query" />
266 <input type="button" value="Get Data" />
267 <div id='result'></div>
268 </body>
269 </html>
```