```
 1   1. Json-Simple library 추가
 2     1)http://json.org/
 3     2)Java > json-simple
 4     3)https://github.com/fangyidong/json-simple
 5     4)https://code.google.com/archive/p/json-simple/
 6     5)Downloads json-simple-1.1.1.jar
 7     6)Not Found
 8     7)https://code.google.com/archive/p/json-simple/downloads
 9     8)Copy to /WEB-INF/lib/json_simple-1.1.1.jar
10
11
12   2. Build Path에 추가
13     1)Project > right-click > Build Path > Configure Build Path...
14     2)Libraries tab > Add External JARs...
15     3)Apply and Close
16
17
18   3. Json-Simple 객체 사용하기
19     1)기본 객체
20       -JSON 객체 생성
21         JSONObject jsonObj = new JSONObject();
22
23       -JSON 객체에 data 저장(복수저장 가능)
24         jsonObj.put("이름1", "값1");
25         jsonObj.put("이름2", "값2");
26
27       -결과
28         {"이름2":"값2","이름1":"값1"}
29
30     2)배열 객체
31       -JSON 배열객체 생성
32         JSONArray array = new JSONArray();
33
34       -여러 개의 JSON 객체 생성
35         JSONObject obj1 = new JSONObject();
36         obj1.put("name","손호준");
37         obj1.put("age","31");
38
39         JSONObject obj2 = new JSONObject();
40         obj2.put("name","이미자");
41         obj2.put("age","57");
42
43       -JSONArray에 담기
44         array.add(obj1);
45         array.add(obj2);
46
47       -결과
48         [{"name":"손호준","age":"31"},{"name":"손호준","age":"57"}]
49
50
51   4. Naver Open API 신청하기
52     1)Naver Login
53     2)Naver Developers : https://developers.naver.com/main/
54     3)Menu중 Application > 애플리케이션 등록
```

```
 55        -애플리케이션 이름 : MyOAuth
 56        -사용 API : 네아로(네이버 아이디로 로그인)
 57          --회원이름, 이메일만 체크
 58        -로그인 오픈 API 서비스 환경 : PC 웹
 59          --서비스 URL : http://localhost:8080/OAuthDemo/login.jsp
 60          --네이버아이디로로그인 Callback URL : http://localhost:8080/OAuthDemo/navercallback.jsp
 61        -등록하기
 62      4)Client ID와 Client Secret 복사하기
 63
 64
 65  5. WebContent/js/jquery-1.12.4.js
 66
 67  6. WebContent/login.jsp
 68    <%@ page contentType="text/html;charset=UTF-8" pageEncoding="utf-8"%>
 69    <%@ page import="java.net.URLEncoder"%>
 70    <%@ page import="java.security.SecureRandom"%>
 71    <%@ page import="java.math.BigInteger"%>
 72    <!DOCTYPE html>
 73    <html>
 74      <head>
 75        <meta charset="UTF-8">
 76        <title>Insert title here</title>
 77        <script src="js/jquery-1.12.4.js"></script>
 78        <script>
 79          $(function(){
 80            $('#naver').click(function(){
 81              var clientId = "q37MdIExwu3BZ09NPGCP";//애플리케이션 클라이언트 아이디값";
 82              var redirectURI = "<%=encodedURL()%>";
 83              var apiURL = "https://nid.naver.com/oauth2.0/authorize?response_type=code";
 84              apiURL += "&client_id=" + clientId;
 85              apiURL += "&redirect_uri=" + redirectURI;
 86              apiURL += "&state=<%=getState()%>";
 87              location.href = apiURL;
 88            });
 89          });
 90        </script>
 91      </head>
 92    <body>
 93      <input type="image" src="http://static.nid.naver.com/oauth/small_g_in.PNG" id="naver" />
 94    </body>
 95    </html>
 96    <%!
 97      private String getState() {
 98        SecureRandom random = new SecureRandom();
 99        return new BigInteger(130, random).toString();
100      }
101
102      private String encodedURL() throws Exception {
103        return URLEncoder.encode("http://localhost:8080/OAuthDemo/navercallback.jsp", "UTF-8");
104      }
105    %>
106
107
108  7. navercallback.jsp
```

```
109    <%@ page contentType="text/html;charset=UTF-8" language="java" pageEncoding="utf-8"%>
110    <%@ page import="java.net.URLEncoder, java.net.URLDecoder" %>
111    <%@ page import="java.net.URL, java.util.Iterator" %>
112    <%@ page import="java.net.HttpURLConnection" %>
113    <%@ page import="java.io.BufferedReader" %>
114    <%@ page import="java.io.InputStreamReader" %>
115    <%@ page import="org.json.simple.*, org.json.simple.parser.*" %>
116    <%
117      String clientId = "q37MdIExwu3BZ09NPGCP";//애플리케이션 클라이언트 아이디값";
118      String clientSecret = "eRH3IS9KR6";//애플리케이션 클라이언트 시크릿값";
119      String code = request.getParameter("code");
120      String state = request.getParameter("state");
121      String apiURL = "https://nid.naver.com/oauth2.0/token?grant_type=authorization_code&";
122      apiURL += "client_id=" + clientId;
123      apiURL += "&client_secret=" + clientSecret;
124      apiURL += "&code=" + code;
125      apiURL += "&state=" + state;
126      String accessTokenString = getAccessToken(apiURL);
127      String result = getResult(accessTokenString);
128      JSONParser jsonParser = new JSONParser();
129      JSONObject obj = (JSONObject)jsonParser.parse(result);
130      obj = (JSONObject)obj.get("response");
131      out.println("email = " + obj.get("email") + "<br />");
132      out.println("name = " + URLDecoder.decode((String)obj.get("name"), "utf-8"));
133    %>
134    <%!
135      private String getAccessToken(String apiURL) throws Exception{
136        URL url = new URL(apiURL);
137        HttpURLConnection con = (HttpURLConnection)url.openConnection();
138        con.setRequestMethod("GET");
139        int responseCode = con.getResponseCode();
140        BufferedReader br = null;
141        if(responseCode == 200) { // 정상 호출
142          br = new BufferedReader(new InputStreamReader(con.getInputStream()));
143        }
144        String result = null;
145        StringBuffer res = new StringBuffer();
146        while ((result = br.readLine()) != null) {
147          res.append(result);
148        }
149        br.close();
150        return res.toString();
151      }
152    %>
153    <%!
154      private String getResult(String result) throws Exception{
155        JSONParser jsonParser = new JSONParser();
156        JSONObject obj = (JSONObject)jsonParser.parse(result);
157        String token = (String)obj.get("access_token"); // 네이버 로그인 접근 토큰;
158        String header = "Bearer " + token; // Bearer 다음에 공백 추가
159        String apiURL = "https://openapi.naver.com/v1/nid/me";
160        URL url = new URL(apiURL);
161        HttpURLConnection con = (HttpURLConnection)url.openConnection();
162        con.setRequestMethod("GET");
```

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163        con.setRequestProperty("Authorization", header);
164        int responseCode = con.getResponseCode();
165        BufferedReader br = null;
166        if(responseCode==200) { // 정상 호출
167          br = new BufferedReader(new InputStreamReader(con.getInputStream()));
168        }
169        String inputLine;
170        StringBuffer response = new StringBuffer();
171        while ((inputLine = br.readLine()) != null) {
172          response.append(inputLine);
173        }
174        br.close();
175        return response.toString();
176      }
177    %>
178
179
180  8. 네이버 아이디로 로그인 API
181    -https://developers.naver.com/docs/login/overview/
182    -튜토리얼 참조하기
```