

Android WebService Demo

Naga Rama Krishna

Prof. Jim Fawcett

- Android – not indepth
- Lecture 12 demo – FileList

Problem statement

- Make web service calls to a Web API
 - Get data
 - Post data

URLs

- <https://localhost:44381/api/Files>
- <http://localhost:57644/api/Files>

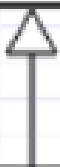
AppCompatActivity

AsyncTask

MainActivity

DownloadJsonAsync
Task

MyUtility



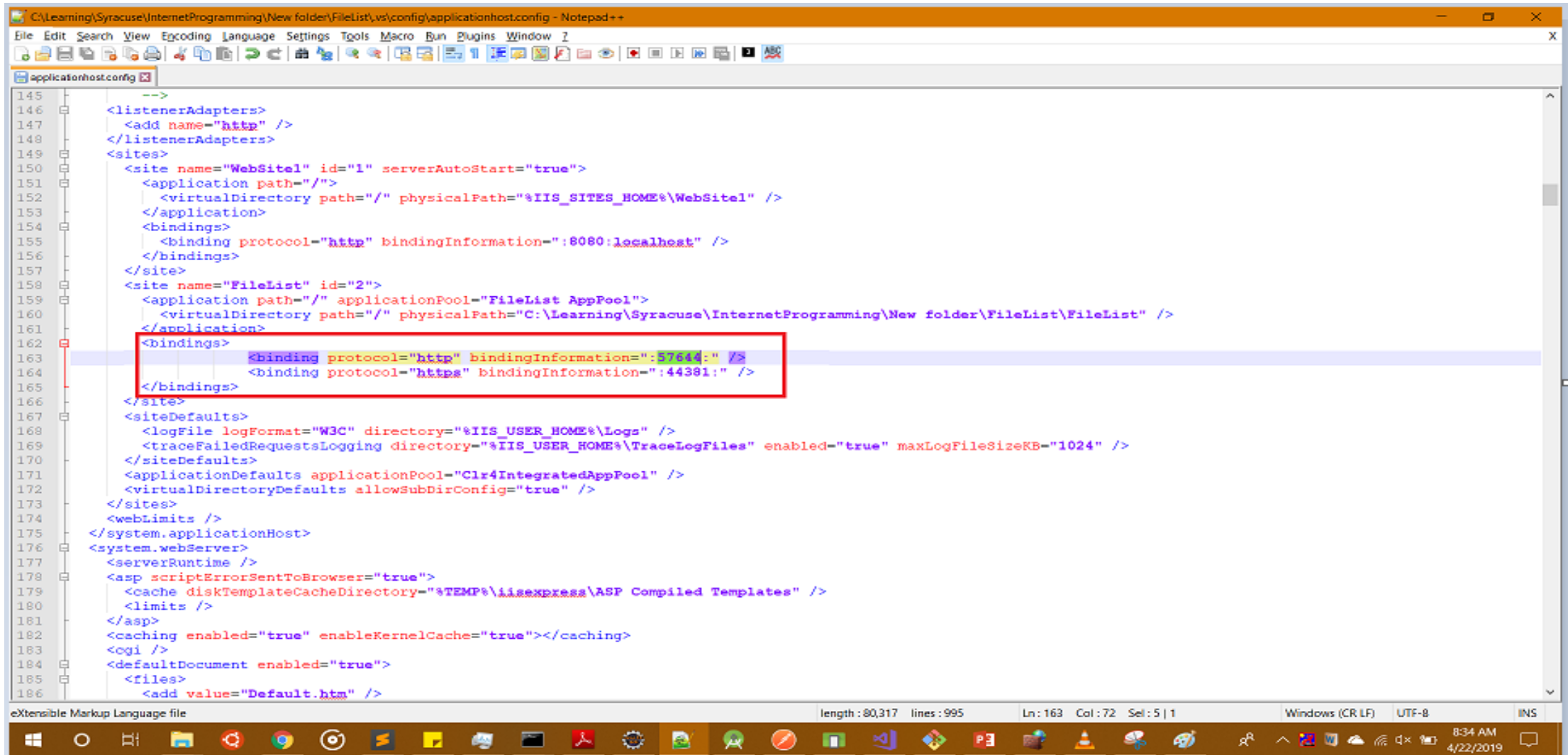
Android App

- User Interface
 - Button
 - Text area (TextView)
- Actual class(MainActivity)
 - Initiate action
 - Display of data
- Action
 - Tigger via HttpURLConnection

Other Changes

- Changes in FileList
 - Disable HttpsRedirection
 - Changes in applicationhost.config (“...\FileList\.vs\config”)
 - Change `<binding protocol="http" bindingInformation="*: 57644 :localhost" />` to `<binding protocol="http" bindingInformation=":57644:" />`
- Firewall changes – add port
 - Control Panel --> Windows Firewall --> Advances Settings --> Inbound Rules --> New Rule

applicationhost.config



```
145 -->
146 <listenerAdapters>
147 <add name="http" />
148 </listenerAdapters>
149 <sites>
150 <site name="WebSite1" id="1" serverAutoStart="true">
151 <application path="/">
152 <virtualDirectory path="/" physicalPath="%IIS_SITES_HOME%\WebSite1" />
153 </application>
154 <bindings>
155 <binding protocol="http" bindingInformation="*:8080:localhost" />
156 </bindings>
157 </site>
158 <site name="FileList" id="2">
159 <application path="/" applicationPool="FileList AppPool">
160 <virtualDirectory path="/" physicalPath="C:\Learning\Syracuse\InternetProgramming\New folder\FileList\FileList" />
161 </application>
162 <bindings>
163 <binding protocol="http" bindingInformation="*:57644:localhost" />
164 <binding protocol="https" bindingInformation="*:44381:localhost" />
165 </bindings>
166 </site>
167 <siteDefaults>
168 <logFile logFormat="W3C" directory="%IIS_USER_HOME%\Logs" />
169 <traceFailedRequestsLogging directory="%IIS_USER_HOME%\TraceLogFiles" enabled="true" maxLogFileSizeKB="1024" />
170 </siteDefaults>
171 <applicationDefaults applicationPool="Clr4IntegratedAppPool" />
172 <virtualDirectoryDefaults allowSubDirConfig="true" />
173 </sites>
174 <webLimits />
175 </system.applicationHost>
176 <system.webServer>
177 <serverRuntime />
178 <asp scriptErrorSentToBrowser="true">
179 <cache diskTemplateCacheDirectory="%TEMP%\iisexpress\ASP Compiled Templates" />
180 <limits />
181 </asp>
182 <catching enabled="true" enableKernelCache="true"></catching>
183 <cgi />
184 <defaultDocument enabled="true">
185 <files>
186 <add value="Default.htm" />
```

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Troubleshooting

- Test in browser/postman
- Status code
- WebAPI app not starting
 - Change port and try

References

- <https://stackoverflow.com/questions/45986621/visual-studio-2017-giving-remote-users-access-to-website-in-iis-express> (Answer 2 for firewall binding)
- <https://www.mkyong.com/java/how-to-send-http-request-getpost-in-java/>