Web Services

Introduction

- The android SDK is shipped with the Apache HttpClient.
- More info about the Apache HttpClient can be found at http://hc.apache.org/httpclient-3.x/.
- The Apache HttpClient is commonly used within Java EE applications. The Apache HttpClient the android SDK includes has been slightly modified.

The Classes

- The HttpClient interface describes the Apache HttpClient, the android platform includes.
- ❖ The HttpGet class describes an HTTP request using the GET method.
- ❖ The HttpPost class describes an HTTP request using the POST method.
- * The HttpResponse class describes the response we get when initiating an HTTP request.

HTTP GET Request

```
HttpClient client = new DefaultHttpClient();

HttpGet request = new HttpGet();

request.setURI(new URI("http://www.lifemichael.com/en/"));

HttpResponse response = client.execute(request);

BufferedReader in = new BufferedReader(
    new InputStreamReader(response.getEntity().getContent()));
...
```

HTTP POST Request

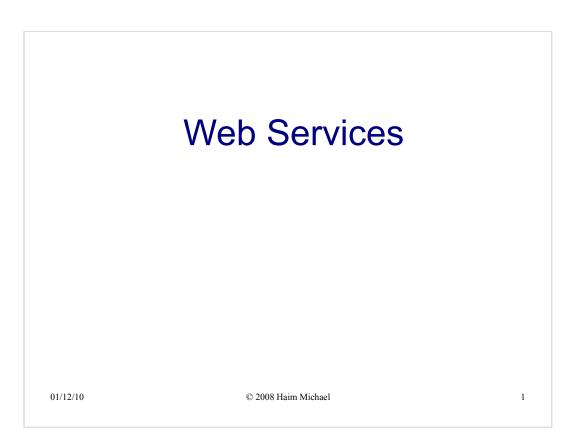
```
HttpClient client = new DefaultHttpClient();
HttpPost request = new HttpPost("http://mysite.com/upload.php");
List<NameValuePair> parameters =
   new ArrayList<NameValuePair>();
parameters.add(
   new BasicNameValuePair("param name", "param value"));
UrlEncodedFormEntity encodedEntity =
   new UrlEncodedFormEntity(parameters);
request.setEntity(encodedEntity);
HttpResponse response = client.execute(request);
in = new BufferedReader(
   new InputStreamReader(response.getEntity().getContent()));
```

Timeout Exceptions

- Dealing with networking the possibility to get timeout exceptions is significantly high.
- There is a need to implement a special algorithm that in the case of a timeout exception it will try to reconnect a predefined number of times.

Threading Issues

When having more than one thread performing HTTP requests, we can overcome threading issues by using the ThreadSafeClientConnManager class.



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01/12/10 © 2008 Haim Michael 3

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01/12/10 © 2008 Haim Michael 4

HTTP POST Request

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