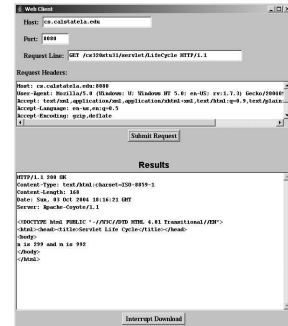


CS320 Web and Internet Programming Generating HTTP Responses

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WebClient

- ◆ Given HTTP request
- ◆ Display HTTP response



HTTP Response Example

```
HTTP/1.1 200 OK
Content-Type: text/html; charset=ISO-8859-1
Content-Length: 168
Date: Sun, 03 Oct 2004 18:26:57 GMT
Server: Apache-Coyote/1.1
```

```
<!DOCTYPE html PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN">
<html><head><title>Servlet Life Cycle</title></head>
<body>
n is 299 and m is 440
</body>
</html>
```

HTTP Response

- ◆ Status line
 - Protocol
 - Status code
- ◆ Header
- ◆ [Message body]

Common Status Codes

- ◆ 404 (Not Found)
- ◆ 403 (Forbidden)
- ◆ 401 (Unauthorized)
- ◆ 200 (OK)

Status Codes

- ◆ 100 – 199: Informational. Client should respond with further action
- ◆ 200 – 299: Request is successful
- ◆ 300 – 399: Files have moved
- ◆ 400 – 499: Error by the client
- ◆ 500 – 599: Error by the server

Redirect Codes

- ◆ 301 (Moved Permanently)
 - GET
- ◆ **302** (Found)
 - a.k.a. (Moved Temporarily)
 - GET
- ◆ 303 (See Other)
 - GET *and* POST
- ◆ 307 (Temporary Redirect)
 - GET but *not* POST

HttpServletResponse Methods

- ◆ void setStatus(int sc)
- ◆ void sendRedirect(String location)
 - 302
 - Handle relative URL
- ◆ Example
 - Course selector

Header Fields

- | | |
|-------------------|--------------------|
| ◆ Request | ◆ Response |
| ▪ Accept | ▪ Content-Type |
| ▪ Accept-Charset | |
| ▪ Accept-Encoding | ▪ Content-Encoding |
| ▪ Accept-Language | ▪ Content-Language |
| ▪ Connection | ▪ Connection |
| ▪ Content-Length | ▪ Content-Length |
| ▪ Cookies | ▪ Set-Cookie |

More Response Header Fields

- ◆ Location
 - for redirect
- ◆ Refresh
 - "Push"
 - Incremental display
- ◆ Cache-Control, Expires, Pragma
 - for cache policies

HttpServletResponse Methods

- ◆ setContentype()
- ◆ addHeader(), setHeader()
- ◆ addIntHeader(), setIntHeader()
- ◆ addDateHeader(), setDateHeader()
- ◆ containsHeader()

Examples

- ◆ Incremental display
- ◆ File name
- ◆ gzip
- ◆ jpeg (Textbook Chapter 7.5)