



NETWORK ASSIGNMENT



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Section 8

Question 1

1. We write on the browser bar `http://www.lifewire.com/index.html`.
2. The browser converts the URL into a request message.
3. The browser sends it to the HTTP server.
4. The HTTP server interprets the request message.
5. The HTTP server returns we an appropriate response message, which is either the resource we requested or an error message.

Question 2

- The protocol is another word for what was called the scheme of the URI.
- The username:password is an optional username and password for the server.
- The hostname part of a URL is the name of the server that provides the resource you want.
- The port number is also optional.
- The path points to a particular directory on the specified server.
- The filename points to a particular file in the directory specified by the path.
- The query string provides additional arguments for the server. It contains form data for input to programs running on the server.
- Finally, the fragment is a short string of characters that refers to a resource that is subordinate to the primary resource.

Question 3

[http:// www.amazon.com/? product =laptop&ram =8gb&ssd=512gb](http://www.amazon.com/?product=laptop&ram=8gb&ssd=512gb)

Question 8

```
import java.net.*;
import java.io.*;
public class HttpClient
{
    public static void main(String[] args) throws IOException {
        // The host and port to be connected.
        String host = "127.0.0.1";
        int port = 8000;
        // Create a TCP socket and connect to the host:port.
        Socket socket = new Socket(host, port);
        // Create the input and output streams for the network socket.
        BufferedReader in
        = new BufferedReader(
        new InputStreamReader(socket.getInputStream()));
        PrintWriter out
        = new PrintWriter(socket.getOutputStream());
        // Send request to the HTTP server.
```

```
out.println("GET /index.html HTTP/1.0");  
// blank line separating header & body  
out.println();  
out.flush();  
// Read the response and display on console.  
String line;  
// readLine() returns null if server close the network socket.  
while((line = in.readLine()) != null) {  
    System.out.println(line);  
}  
// Close the I/O streams.  
in.close();  
out.close();  
}  
}
```

Question 12

200 OK: The request is fulfilled.

401 Authentication Required: The requested resource is protected, and require client's credential

403 Forbidden: Server refuses to supply the resource, regardless of identity of client.

404 Not Found: The requested resource cannot be found in the server

405 Method Not Allowed: The request method used, e.g., POST, PUT, DELETE, is a valid method. However, the server does not allow that method for the resource requested.

501 Method Not Implemented: The request method used is invalid (could be caused by a typing error, e.g., "GET" misspell as "Get")