

cs3157 lecture #13 notes.

mon 21 apr 2003

<http://www.cs.columbia.edu/~cs3157>

- news
 - homework #4 due today
 - homework #5 posted later today
- today
 - Internet programming:
 - * HTML forms
 - * CGI
 - * Javascript

a.cgi

```
#!/bin/sh
echo "Content-type: text/plain"
echo
env
```

b.cgi

```
#!/bin/sh
echo "Content-type: text/plain"
echo
echo "QUERY_STRING = [${QUERY_STRING}]"
```

c.cgi

```
#!/bin/sh
echo "Content-type: text/html"
echo
echo "<html><body bgcolor=black text=white>"
echo "<h1>QUERY_STRING = [${QUERY_STRING}]</h1>"
echo "</body></html>"
```

d.c

```
#include <stdio.h>

int main( int argc, char **argv ) {

    fprintf( stdout, "Content-type: text/plain\n\n" );
    fprintf( stdout, "hello world!\n" );

}

compile using: gcc d.c -o d.cgi
```

e.c

```
#include <stdio.h>
#include <stdlib.h>

int main( int argc, char **argv ) {

    char *query_string = getenv( "QUERY_STRING" );

    fprintf( stdout, "Content-type: text/plain\n\n" );
    fprintf( stdout, "query_string=%s\n", query_string );

}

compile using: gcc e.c -o e.cgi
```

f.html

```
<html>
<body bgcolor=#aaaa00>

<form name="loginform" method=get
action="http://wwwl.cs.columbia.edu/~cs3157/ip/c.cgi">

<p>enter a message:
<input type="text" name="msg" size="25">

<p>
<input type="submit" value="send">

</form>

</body>
</html>
```

g.html

```
<html>
<body bgcolor=#aaaa00>

<form name="loginform" method=post
action="http://wwwl.cs.columbia.edu/~cs3157/ip/h.cgi">

<p>enter a message:
<input type="text" name="msg" size="25">

<p>
<input type="submit" value="send">

</form>

</body>
</html>
```



```
<input type="reset">
```

```
</form>
```

```
</body>
```

```
</html>
```

j.c

```
#include <stdio.h>
```

```
#include <stdlib.h>
```

```
#include <string.h>
```

```
int main( int argc, char **argv ) {
```

```
    char post_string[1024];
```

```
    char *p;
```

```
    fscanf( stdin, "%s", post_string );
```

```
    fprintf( stdout, "Content-type: text/plain\n\n" );
```

```
    fprintf( stdout, "post_string=[%s]\n", post_string );
```

```
    p = strtok( post_string, "&" );
```

```
    while ( p != NULL ) {
```

```
        fprintf( stdout, "p=[%s]\n", p );
```

```
    p = strtok( NULL, "&" );
```

```
    }
```

```
}
```

```
compile using: gcc j.c -o j.cgi
```

javascript: js0.html

```
<html>
```

```
<body>
```

```
<script>
```

```
document.write("<h1>")
```

```
document.write("hello world")
```

```
document.write("</h1>")
```

```
</script>
```

```
</body>
```

```
</html>
```

javascript: js1.html

```
<html>
<head>
<script language="Javascript">
<!-- you might want to imbed this in quotes so that older browsers
will not crash on the code

function daisy() {
  alert( "Daisy, Daisy, give me your answer do.\n" +
        "I'm half crazy, all for the love of you.\n" +
        "Will you marry me Dave?" );
}

//-->
</script>
</head>

<body>
```

```
<h1>
<form>
<input type="button" name="panicbutton" value="panic button"
onClick="daisy()">
</form>
</h1>
</body>

</html>
```

javascript: js2.html

```
<html>

<head>

<script language="JavaScript">

function getName() {
  yourName = prompt( "What's your name?", "Dave" );
  message = "Hi " + yourName +
    ".\nI prefer the name \'Dave\' to other names.\n" +
    "I think I'll keep calling you Dave.\nI know you won't mind.";
  alert(message);
}

function huh() {
  return
  confirm( "Dave, my mind is going."+

```

```
"\nAre you sure you want to do this?" );
}

function huhWrap() {
  if( huh() )
    alert( "My mind is going.\nMy mind is going.\n*SILENCE*" );
  else
    alert( "Thank you Dave.\nI am glad we could work this out!" );
}
</script>

</head>

<body>

<h1>
<form>
<input type="button" name="demo2Button" value="What's your name?"
onClick="getName()">
</form>
```

```

<p>
<b>Dave:</b> Open the pod bay door HAL!<br>
<br>
<b>HAL:</b> I'm sorry Dave, I can't do that.<br>

<script>
document.write("hello world")
</script>

<form>
<input type="button" name="demo3Button" value="De-activate HAL"
onClick="huhWrap()">
</form>
</h1>

</body>

</html>

```

javascript: js3.html

```

<html>

<body>

<h1>
<script>

function ship( name,cptn,numeng ) {
this.name = name;
this.cptn = cptn;
this.numeng = numeng;
}

enterprise = new ship( "enterprise", "kirk", 3 );

document.write( enterprise.name+" "+enterprise.cptn+" "+
enterprise.numeng+"\n" );

```

```

document.write( "<br>" )

var i; for ( i in enterprise ) {
document.write( enterprise[i]+"<p>" );
}

document.write( document.links.length );
document.write( "</h1>" );

</script>

</body>

</html>

```