

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://www1.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://www1.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>
```


i.html

```
<html>
<body bgcolor=#cccccc text=#000000>

<form name="loginform" method=post
action="http://www1.cs.columbia.edu/~cs3157/ip/j.cgi">

<p>
<b>enter the secret password:</b>
<input type="password" name="pw">

<p>
<b>do you like my hat?</b><br>
<input type="radio" name="hat" value="yes"> yes, i like that
party hat<br>
<input type="radio" name="hat" value="no"> no, i do not like
your hat<br>
```

```
<p>  
<b>select a file to delete:</b>  
<input type="file" name="delfile">
```

```
<p>  
<input type="hidden" name="secret" value="open sesame">
```

```
<p>  
<b>which kind of ice cream do you like?</b><br>  
<input type="checkbox" name="icecream" value="hd">haagen dasz<br>  
<input type="checkbox" name="icecream" value="bj">ben & jerry's<br>  
<input type="checkbox" name="icecream" value="ed">edie's<br>
```

```
<p>  
<b>select your grade:</b>  
<select name=mygrade>  
<option>  
<option>A+  
<option>A  
<option>B
```

```
<option>C  
<option>D  
<option>F  
</select>
```

```
<b>select your roommate's grade:</b>  
<select name=yourgrade>  
<option>A+  
<option>A  
<option>B  
<option selected>C  
<option>D  
<option>F  
</select>
```

```
<p>  
<b>select your favorite classes:</b>  
<select name=classes multiple>  
<option>cs1007  
<option>cs3137
```



```
<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>
```