

IT 105 – Principles of Programming

Day 07

1. Helpful resources:
 - a. W3 Schools HTML Tutorial: <https://www.w3schools.com/html/>
 - b. HTML Powerpoint in Moodle.
2. Just a reminder, when you save your pages make sure they are text, but that they have the .html extension and not .txt. As you modify your pages to add functionality, be sure to save separate copies.
3. Note how the W: drive directory structure is related to URL:
 - a. If I save a file called hello.html on the top level of my GitHub Pages, the associated URL would be:
`https://username.github.io/hello.html`
 - b. But if save the same file in a sub-folder called **it105**, the associated URL would change to:
`https://username.github.io/it105/hello.html`
 - c. The **it105** sub-folder is represented in the URL.
4. Note W3 Schools link for HTML and HTML .ppt
5. , <i>,
, <u>, <H**x**>, <p>
(<http://jcsites.juniata.edu/faculty/kruse/it105/inClass/htm01.html>)
6. <body bgcolor=_ _ _ _ _> in hexadecimal

<u>decimal (base 10)</u>	<u>binary (base 2)</u>	<u>hexadecimal (base 16)</u>
0	0000	0
1	0001	1
2	0010	2
3	0011	3
4	0100	4
5	0101	5
6	0110	6
7	0111	7
8	1000	8
9	1001	9
10	1010	A
11	1011	B
12	1100	C
13	1101	D
14	1110	E
15	1111	F

7. Regarding the above:

- a. Binary, base 2, means there are 2 base digits, 0 and 1.
 - i. To convert from binary to decimal, expand using powers of 2.
 - ii. For example: $1101_2 = 1*2^3 + 1*2^2 + 0*2^1 + 1*2^0 = 8+4+1 = 13_{10}$.
 - iii. For example: $0111_2 = 0*2^3 + 1*2^2 + 1*2^1 + 1*2^0 = 4+2+1 = 7_{10}$.
- b. Decimal, base 10, means there are 10 base digits, 0 thru 9.
- c. Hexadecimal, base 16, means there are 16 base "digits," 0 thru F.
- d. The largest two digit number in:
 - i. Binary is $11 \rightarrow 3$ in decimal (or using subscripts: $11_2 = 3_{10}$).
 - ii. Decimal is 99.
 - iii. Hexadecimal is FF $\rightarrow 255$ in decimal and 1111 1111 in binary.

8. Anchor tag, <a> to an external webpage:

```
<a href="http://jcsites.juniata.edu/faculty/kruse/it105/it105syl.htm">homepage?</a>
```

9. Anchor tag, <a> linking to a position on the same page:

```
<!-- here is the href at the top of the page -->  
Click <a href="#bottom">here</a> to go to the  
bottom of the page.
```

```
<!-- the NAME element would then be farther down  
the page -->  
<A NAME = "bottom"> Here we are at the bottom.</a>
```

For example, with the URL

<http://jcsites.juniata.edu/faculty/kruse/it105/inClass/htm01.html>,

note how it (the internal reference, #bottom, is appended) changes when the href button is clicked:

<http://jcsites.juniata.edu/faculty/kruse/it105/inClass/htm01.html#bottom>