INFO I211 - Information Infrastructure II

Spring 2014

Lab 3: generating `html` files from `Python 2.x`

Tasks

1. Use **PuTTY** or OpenSSH to login to the main Burrow Linux system
2. **CGI directory**: Once you are logged into *silo.soic.indiana.edu*, change directory to *~/cgi-pub/* :

   ```
   cd ~/cgi-pub/
   ```

3. **Write a Python 2.x program that generates an html file**: for example using the **pico** text editor:

   ```
   pico lab3.py
   ```

4. On your own, **download the text file** named "*temperatures.text*" from the Oncourse I211 site (in Resources->Labs).
   - In the "*temperatures.text*" file, every line contains one text string representing a place/town/city (e.g. Bloomington), and one number representing a temperature (e.g. -10, +34.5), separated by space (" ").
   - Upload the "*temperatures.text*" file from the lab PC (i.e. where you just downloaded it from Oncourse), to *silo.soic.indiana.edu* using *WinSCP*.
   - Within on your account on silo, move the "*temperatures.text*" file to the `~/cgi-pub/` directory.

5. **The lab3.py program should do the following**:

   - Write a Python 2.x program that reads from the "*temperatures.text*" file, and writes its content out to a file as an HTML table, within a complete web page HTML file.
   - The HTML file that is generated should be called "lab3.html", and it should contain an HTML *table* with two columns. In the HTML table, place a first "*header*" *row* with the words "location" and "temperature" in its two table cells. Subsequent rows should be generated by your Python code, one for each line read from the "*temperatures.text*": each new row in the HTML table should contain values for location and temperature as read from that file.
   - Some useful Python 2.x calls, about strings...
     - list-of-substrings = string.split() # obtain a list of the words in the string, using whitespace as the delimiter string
   - ...and about files
     - file = open(filename, "w")   # open a file for writing to it, or:
     - file = open(filename, "r")   # open a file for reading from it
     - file.write(some-text-string) # to write some-text-string to a file
     - list-of-strings = file.readlines() # to read text from a file, each read line then goes to an element in the list
     - file.close()

1. **HTML web page test**: In a web browser window, go to the following URL address to verify that your `lab3.html` page is now visible to the world (use your own username, not the word "username"

in the address):

```
http://cgi.soic.indiana.edu/~username/lab3.html
```

Last updated: *Mitja Hmeljak* January 30, 2014