İSTANBUL TECHNICAL UNIVERSITY
Department of Computer Engineering
BIL103E – Introduction to Information Systems – Fall 2015
Assignment 1

ASSIGNMENT 1

High-level Instructions

✻ See page 2 for step-by-step instructions. ✻

- STEP 1 (Week 4: 12 October approximately):
  - Collect information for your website. The website will be a fan-website where you give information about a topic you love.

    ☝

    DO NOT COLLECT TEXT VERBATIM. IF YOUR TEXT IS VERBATIM YOU MUST QUOTE IT AND GIVE A LINK OR CITATION.
  - Create your *PythonAnywhere* website (your *PythonAnywhere* account will be automatically created for you).
- STEP 2 (Week 5: ~~19~~ 26 October approximately):
  - Create the (multiple, linked) HTML files for your website, so that you can view them on your local computer.
  - Upload this website to *PythonAnywhere* so that it can be viewed on the web, and validate it with a validator.
- STEP 3 (Week 6: ~~26 October~~ 2 November approximately):
  - Add CSS styles to your website to give it an advanced look.
  - Publish it with styles to *PythonAnywhere* so that it can be viewed on the web, and validate it with a validator.
- STEP 4 (Week 7: **~~2 November~~ 9 November 9:30am**):
  - Create a logo for your website from scratch using Inkscape. Incorporate it into the website so that it can be viewed from a browser.
  - Take an existing photo related to your topic and process it in GIMP to show off your GIMP skills. Put on the website **both** the original photo and the photo processed with GIMP for comparison.
  - Upload this all to *PythonAnywhere* **by the due date and time** so that it can be viewed from the web.
    - Ensure the files are in the correct place so that your submission can be marked.

Submission Notes

- All steps of this assignment will be evaluated only after the final submission time (2 November 9:30am) has passed. However, it is recommended that you get the earlier steps done by their respective due dates.
- **By the final due date and time, you need to upload your files to the place specified in the assignment documents so that they can be downloaded by our markers.**
  - Feel free to check your fellow students' work and comment on them via *Ninova* (links to all students' assignments will be provided via the *Ninova* forum after the final submission date).
- **To have your assignment counted against your grades, attend your demonstration session**, which will be announced in a separate schedule and will be after the due date of the assignment.
- Check the separate evaluation form to see on what basis what your markers will be grading you.
  - Use all of the document & image processing techniques shown in the evaluation form.
  - If the lecture did not cover a particular technique listed on the evaluation form, it is your responsibility to learn how to do it.
- Have fun.

✻ Keep your eye on the separate evaluation form, for the marks. ✻

Step 1

Finish by approximately 12 October.

Collect information

Collect information for your website. The website will be a fan-website where you give information about a topic you love. The information will be in the form of text and pictures.

DO NOT COLLECT TEXT VERBATIM. IF YOUR TEXT IS VERBATIM YOU MUST QUOTE IT AND GIVE A LINK OR CITATION.

(it is recommended not to use copy-paste at all and if you do, clearly state in your notes the text's origin so that you can quote it if you include it in your website)

Set up your PythonAnywhere web server

You need to set up your website so that it can be viewed by anyone with a web browser and an internet connection. You also need to set up the files so that they can be extracted for marking. So you need to be very precise in the names of your files and folders.

Log in to PythonAnywhere

Using a browser (such as Firefox), log in to your *PythonAnywhere* account. Your account details should be emailed to your ITU webmail.

*If you have a separate PythonAnywhere account **do not** use it for this course. Your assignments will be collected for marking from your automatically created PythonAnywhere account.*

*When your PythonAnywhere account was set up, one of your instructors was assigned as your "teacher". **Do not change this** or your assignments cannot be collected for marking.*

Make your web application

From your *PythonAnywhere* Dashboard (click "Dashboard"):

- Click "Web".
- Click "Add a new web app".
- A dialog will pop up asking you to choose the **web app's domain name**. You will accept the default. It will be `<YOURPYTHONANYWHEREID>.pythonanywhere.com`. Click "Next".
- The dialog will ask you to choose a **Python Web framework**. Choose "Bottle".
- The dialog will ask you to choose a **Python version**. Choose "Python 3.4".
- The dialog will ask you to type in a **path** to your bottle project. Accept the default by clicking "Next".

Your web app should now be created. If you click on the link to `<YOURPYTHONANYWHEREID>.pythonanywhere.com`, you should be redirected to a page that writes "Hello from Bottle!". This is your web app.

Where <YOURPYTHONANYWHEREID> is written, this should be substituted with the PythonAnywhere username that you received when your PythonAnywhere account was automatically opened.

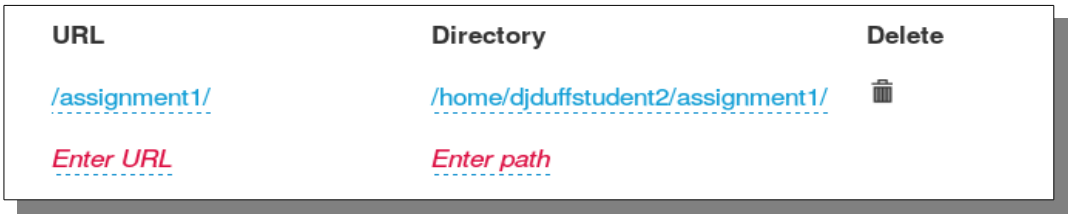
Make your web application serve HTML files.

You have created a web application but we are not interested in creating Python web applications in this assignment (that will be a later assignment). You need to make one more small change so that your web

application serves HTML files directly.
From your *PythonAnywhere* Dashboard (click "Dashboard"):

- Click "Web". Information about your Web app should be visible.
- Scroll down to the heading "**Static files**".
- Click "Enter URL". In the resulting text box type `/assignment1/`
- Click the Tick box to accept the URL.
- Next to the URL that you have entered, click "Enter path". Type `/home/<YOURPYTHONANYWHEREID>/assignment1/`
- Click the Tick box to accept the path to the directory.

Note: substitute `<YOURPYTHONANYWHEREID>` for your *PythonAnywhere* username) For example, if your username were `djduffstudent2`, you should see the following results:



- Scroll to the top of the page and click "Reload <YOURPYTHONANYWHEREID>.pythonanywhere.com". The button will look a little like this: 

Create the first file that you will serve.

Here you will create a file and check that it is being "served" by your PythonAnywhere web application. The file will not yet be HTML.
From your *PythonAnywhere* Dashboard (click "Dashboard"):

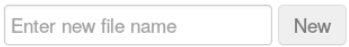
- Click "Files".
- Create a new folder called `assignment1`. You can do this by finding the text box looking like:

  Type `assignment1`, and click "New":

- You will now be viewing the files inside the `assignment1` directory. Create a new file called `index.html` here by finding the text box looking like:

  Type `index.html`, and click "New":

- You will now be in a text editor. Type the text `This is my assignment, but it is not finished. It is not even HTML!`
- Click Save: 

- Now you should have set up your first web-page, even if it is not a proper website yet. To check that you have done everything correctly, type into a browser address bar the address where the above text should be visible: `http://<YOURPYTHONANYWHEREID>.pythonanywhere.com/assignment1/`

✻ If you made a mistake you can start again by deleting your web application from the "Web" tab on our dashboard. ✻

Step 2

Finish by approximately ~~19~~ 26 October.

Create the HTML files for your website

Using the browser, text editor and file manager of your choice, create the HTML files for your fan website.

Important points:

➤ This can be done on any operating system with any browser but the website will be viewed by the markers using *Firefox* on *lubuntu*.

➤ The work of creating the website should be done on your own computer, **not** on *PythonAnywhere*. The website should be designed so that it can be viewed both on your computer ("locally") and on *PythonAnywhere*. So use "relative links".

➤ The folder containing your HTML files should be called `assignment1` and should contain at least a file called `index.html`, which is the home page for your website.

➤ Make sure to create multiple HTML files with links between them. When you click on a link, the correct file should be loaded.

➤ You can view your website while it is on your computer ("locally") by loading it into your browser.

For this purpose you can use the "File... Open File..." capability of your browser, navigating to the `index.html` file and selecting it.

➤ Check the evaluation criteria for this assignment so that you know at least the minimum HTML capabilities that you need to use for this assignment, and be prepared to explain to the demonstrator where you used these in your website.

➤ Extra information about HTML and websites can be found from the tutorial website http://w3schools.com/.

➤ The following textbook is the suggested reference. The section "HTML Basics" is relevant to this step:

http://interactivepython.org/runestone/static/webfundamentalsITUBIL103E2015Fall/index.html

➤ The website should be written in valid HTML according to the "HTML 5" specification.

Upload to PythonAnywere

Using the *PythonAnywhere* file manager, upload the files of your website into the `/assignment1/` folder in your *PythonAnywhere* account. The long but simple way is explained here, though there are faster ways.

For each file in your website:

From your *PythonAnywhere* Dashboard (click "Dashboard"):

- Click "Files".
- Click on your "assignment1" directory.
- At the bottom of the page, next to "Upload File" click the "Browse" button.
- Navigate to the file that you need to upload and select it.

Now your website should be visible from the web. Type into a browser:

`http://<YOURPYTHONANYWHEREID>.pythonanywhere.com/assignment1/`

There you should be able to view your website from any computer connected to the internet.

Validate your website

Navigate to http://validator.w3c.org/ and in the "Address" textbox section type in the address to your website:

`http://<YOURPYTHONANYWHEREID>.pythonanywhere.com/assignment1/`

Click "Check". If there are any errors, fix them and re-upload. Also ensure that the website has been interpreted as HTML 5.

Step 3

Finish by approximately ~~26 October~~ 2 November.

Use the knowledge you have learned from lessons or from http://w3schools.com/ to style your web site to make it more visually appealing. Use external stylesheets (`.css` files and `<link rel ...>` tags).
As described in the previous step, upload the result to PythonAnywhere and validate it as HTML 5 using http://validator.w3c.org/.

➤ In the Fundamentals of Web Programming textbook, "Cascading Style Sheets" is the relevant section:
http://interactivepython.org/runestone/static/webfundamentalsITUBIL103E2015Fall/index.html

➤ The website should be written in valid HTML according to the "HTML 5" specification.

➤ Check the evaluation criteria for this assignment so that you know at least the minimum CSS capabilities that you need to use for this assignment, and be prepared to explain to the demonstrator where you used these in your website.

Step 4

Finish by ~~2 November~~ 9 November 9:30am.

1. Use the *Inkscape* program to create a logo for your website. Ensure that you check the evaluation criteria document so that you use at least the capabilities of *Inkscape* described there (and be prepared to explain these in your demonstration session).
2. Add the logo so that it is visible on the website.
3. Download a photo related to your website and process it with *GIMP*. You may choose the functions of *GIMP* that you use to process the photo – of course, try to make it relevant to the theme of the website. Ensure that you check the evaluation criteria document so that you use at least the capabilities of *GIMP* described there (and be prepared to explain these in your demonstration session).
4. Add both the original photo and the processed photo so that they are visible somewhere on your website.
5. Again upload the website to *PythonAnywhere* and validate it.

If you get the website uploaded to PythonAnywhere in the correct location by the due date and time, it will be marked.