2170 ASSIGNMENT 2

***Due date.*** **Sunday, October 18, 2020 (11:00pm)**

**Purpose:** This is the second in a set of assignments that will lead you to develop a lightweight Content Management System (CMS) that is similar to Instagram – in this case called ***Picturegram.*** *Picturegram* will capture moments using mainly photos with small posts, that other users can comment. As well, Picturegram will have the following functionality/pages: search posts (in page and within all posts), and other administrative duties (e.g., add a new post, sign in).

The purpose of this assignment is to build on the codebase you created in Assignment 1 and to work with files to make dynamic web content. All assignments are to be your own work.

**In this assignment, you will do the following:**

1. Add functionality and content to the Homepage, and the Post page.
   1. Using files to save, retrieve and update content to display on the pages
2. Ensure that you add functionality noted as missing in assignment 1 (the markers will list items that were missing in the first assignment and these need to be addressed in this assignment – in the assignment documentation).

Note that if you decide to make small changes to your templates you designed in Assignment 1, that is fine but these changes must be described in your documentation.

**Image and content considerations:**

I have supplied the text files and images that you will use for this assignment (description of the files is at the end of the assignment).

**Assignment Information:**

***Grades.*** This assignment will be graded out of 50 marks and then scaled to 10 points.

***Submission.*** All deliverables must be submitted on Brightspace: <https://dal.brightspace.com>

***Late submission policy.*** **There is a two-day late policy** (10% deduction for one day late and 15% for day two late – 25% max.). No assignments will be accepted after the late deadline.

***Academic Integrity.*** Dalhousie academic integrity policy applies to all submissions in this course. You are expected to submit your own work. Please refer to and understand the academic integrity policy, available at: <https://www.dal.ca/academicintegrity>

***Content for the website.*** Use the supplied content which is mostly based on the Lorem Ipsum generator to generate paragraphs of dummy text: <http://www.lipsum.com> and images that are mine (I give you permission to use for the assignment/s).

***Deliverables.*** Follow instructions starting on of this document to submit all deliverables of this assignment.

**General Instructions**

1. Create a folder named A2.
2. Make sure you copy all your scripts, images, folders and other files from your A1 submission (e.g., everything from the folder you named A1 submitted for Assignment 1 and paste them into A2) and make sure the updated and additional files are also included.
3. Follow the guidelines described next to develop the layouts for the templates.
4. Follow the file format description given at the end of the assignment.

**Updates to the Homepage Template**

You will use the supplied text files and images to create the content for the home page. The posts will be displayed by date (the most recent will be first). The format will always be Image, post text, authors name and the date and time that the post was made (the most recent will be displayed first).

When a user clicks the author's name, the user should be taken to the About page.

When a user clicks the text or image of a post, the user should be taken to the Post page (post.php) that will dynamically display the selected post (as well as the comments that other users make on the post).

At the bottom of the page, there is an older button so that users can navigate through the pages. We will not add functionality to this for this assignment but should remain on the template.

Use Figure 1 to help you implement this page.

Specifically:

1. The content of the posts will be based on files. Under *File Formats* at the end of the assignment there is a description that will help you with naming and organize your files for this assignment that can be used for the HomePage (index.php), and the other subsequent pages. Note, while there are only 5 post entries listed in the cvs file, but you should code your page for any number of entries (e.g., use a loop). **\*\*\*You must retrieve the data from the files to populate the homepage (and other pages). You will not receive marks if you hardcode the text.\*\*\***
   1. Using the files, you will display images, post text, author, and the date and time. The author's name should have a link to the About page. You can assume for this assignment that there is only one image per post. If the user clicks either the image or text related to the post it will take them to the post.php page which will be populated based on the post (image and text) and comments.
   2. The order of the posts will be based on a timestamp that will display the posts in order from most recent to oldest.
   3. Use the included cvs file to help you populate the home page. This file contains a summary of the needed information for both the home page and relevant post page (Table 1).

|  |
| --- |
| Table 1 – the post.cvs file content |
| A screenshot of a cell phone  Description automatically generated |

The first row is for information only (headings). The following rows contain the information for each post. Each post has a timestamp (in UNIX format) which will need to be converted to the date and time; the name of the image file for the post, the name of the author of the post, the name of the file that holds the text and finally the name of the file that contains all the comments that relate to each post.

You will use the files and information held in this table to dynamically update the home page (and post page).

|  |  |
| --- | --- |
| A picture containing photo, different, view, television  Description automatically generated | NOTE: the only hard coded text should be the *name* "Lorem Nullan" on the navigation bar, everything else should be based on the files (images and text).  All the images and text are listed in order (most recent to oldest). Note, the first post is dated August 22, 2020 and last post is dated June 3, 2020).  The author's name should be the one listed in the cvs file. The date and time are based on the timestamp provided in the cvs file.  When a user selects an image or text of a post, it should take them to the post.php page which will be updated based on selected post.  HINT: Use a querystring with GET method and pass related information (e.g., author, date, image file name, content file name, comment file name) in the URL that the post.php page can then use to create its page). |
| Figure 1. Homepage Template | |

**Updates to the Post Template**

Whenever a user selects a post (image or text) on the homepage, the user will be taken to the single post page. The Post page contains a single post that has the image at the top of the page with text overtop (the post, author name, date/time), the ability to add a comment and a list of comments.

At the bottom of the page, there is a small form for web users to add a comment as well as displaying all other comments made. Previous comments should be shown on the page under the comment form (in order from newest to oldest). You will load the comments for each post from the filename\_comments.txt file. The comments file contains a timestamp followed by a comment. The oldest comment is at the start of the file. When someone submits a new comment, that comment should be saved (with a timestamp) at the end of the comments file. The page should automatically be updated with the new comment at the top of the comments on the page.

See Figure 2a for a visual of the page. Figure 2b, shows the process of selecting a post from the index.php is showing up on post.php, and adding a new comment. Also note, while there are limited comments listed in the comment file, you should code for any number of comments (e.g., use a loop).

1. The content of the posts will be based on files. Under *File Formats* there is a description that will help you with naming and organize your files for this assignment that can be used for the Post page, and the other subsequent pages.
   1. Using the files, you will display the image for the post, post title, author (with a link to the About page) and date. Under this, the post will be displayed. You can assume for this assignment that there is only one image per post and that the image is always at the top of the post.
2. User the post is a form that allows users to comment on the post. All comments made should be saved to that post's comment file with a timestamp. Again, comments should be in order from newest to oldest. After a user submits a new comment, it should be written to the file with a timestamp and displayed on the web page (it should be the first comment on the page).

|  |  |
| --- | --- |
| A screenshot of a cell phone  Description automatically generated | NOTE: the only hard coded text should be the *name* "Lorem Nullan" on the navigation bar, everything else should be based on the files (images and text).  The background image is the post image. The text, author and date are on top of the photo. Below is a form to add a new comment, followed by all the comments that have already been made (from recent to oldest). Each comment has the date and time, with the comment under. When a user makes a comment, that comment should be saved to the file and the page should automatically be updated (no 'refresh' needed) with the new comment at the top.  HINT: You can get the information for the post image file name, author, date, text file name and comment file name from GET function. When a user enters a comment, you can use the querystring with a POST function with the submit button. Then you can check update the page automatically (ie. update the comments) on a POST. |
| Figure 2a). This is the template used to display a single post | |

|  |  |
| --- | --- |
| A picture containing photo, different, view, television  Description automatically generated | A screenshot of a cell phone  Description automatically generated |
| Figure 2b) Step 1. User selects a post from index.php (homepage) | Figure 2b) Step 2. post.php page – loaded with appropriated info |
| A screenshot of a cell phone  Description automatically generated | A screenshot of a cell phone  Description automatically generated |
| Fig. 2b) Step 3. User makes a new comment and presses submit (comment is saved to comment.txt file) | Figure 2b) Step 4. post.php updates with new comment as first. |

**Recommended *File Formats* for Assignment 2**

You will have different files for this assignment. Note, on Brightspace under Assignments – Assignment2 I have included a set of files for you to use for this assignment:

**HomePage and Post Page Information (posts.csv)**

There is a csv file that holds information for 4 posts. It is based on a spreadsheet with the top row as headings (I've shown it as it would appear in an excel spreadsheet table, but it is saved as csv file):

|  |
| --- |
| A screenshot of a cell phone  Description automatically generated |

Notes:

* The first row of the table are the headings, the data will be on subsequent rows
* The data is in Timestamp format only (note, you will need to change the timestamp to a readable date when displaying it on the webpage – see the format used on the templates)
* Image File is the name of the image that goes with the post (e.g., farm.jpg) for the image that goes with the post
* Author of post (in the files, the author's name is Lorem Nullam created by the generator)
* Post File will contain the name of the text file that goes with the post (e.g., farm.txt). This file uses the Lorem Ipsum generator to generate paragraphs of dummy text for files for the posts displayed on the home page and individual post page. The post at the top of the file is the newest and the oldest one is at the bottom of the file.
* Comment File will contain all the comments made for that post (e.g., farm\_comments.txt). The oldest posts will be at the top of the file and newest ones will be at the bottom. (Note, that this is in a different order than for the list of files in the csv file so take care when displaying on the webpage to ensure the most recent comment is displayed first.

**Comments Files**

The comment files will be named similar to the post files (and as text files). Each comment will have a timestamp followed by the comment. You will need to display the timestamp as a proper date (date and time). The newest comment will be at the bottom of the file. *However, on the web page the comments should be displayed most recent to the oldest.*

**Using Image files**

I have provided my own personal images and you may use them for this assignment only. I give you permission to use these for your assignment so that we don't have to worry about copywrite laws.

**Submissions (DELIVERABLES) (will be graded for a total of 50 marks)**

1. Folder structure (5 marks)
   * Folder structure must be (note, you may have some additional files/folders from using Bootstraps templates that are not listed below. That is fine.):

**A2**

|---- index.php

|---- post.php

|---- about.php

|---- login.php

|---- allPosts.php

|---- functions.php

|---- **css**

| |---- CSS files as per framework[[1]](#footnote-1) (template)

| |---- CSS files that you might have created

|---- **fonts**

| |---- Font files as per framework

| |---- Other font files that you might have used

|---- **js**

| |---- JavaScript files as per framework1

| |---- Other JavaScript files that you might have created/used

|---- **misc**

| |---- <placeholder for future functionality – empty folder>

|---- **files**

| |---- all the files (text, csv, images) that you used

|---- **ANY OTHER FOLDERS IN THE THEME – you can keep these as well**

1. Navigation (5 marks)
   * Navigation works as expected (i.e. proper pages load with up to date files)
2. Homepage template (10 marks)
   * Design, Functionality, good programming style and commenting
   * Files (image and text) are downloaded and displayed properly from the CVS file (note, although there are only 5 entries, your code should be able to handle any number of entries/rows of posts).
   * Dates and times are properly displayed
   * Links to post.php page
3. Post template (20 marks)
   * Design, Functionality, Good programming style and commenting
   * Files (image and text) are downloaded properly and displayed properly
   * Data from index.php page is transferred (e.g., querystring) to post.php page
   * Comments are loaded properly in the correct order (are not hard coded and will deal with any number of comments in the file)
   * Dates and times are properly displayed
   * New comments are saved to the appropriate file
   * After new comment is made, page is *automatically* refreshed with newest comment first
4. Overall look/functionality of site (5 marks)
   * Look and feel is consistent the templates
   * Demonstrates that can load, update, files and write to files
   * Have included the functions file to all your templates and have created reasonable functions (e.g., ones that make sense and are helpful)
5. Documents (framework.txt) (5 marks) – 1 to 2 pages max
   * If any missing parts/parts for improvement listed from A1 – list and describe how you fixed them.
   * Any updated elements from A1 (if you decided to change anything) explain what you changed.
   * A description of how you implement each template
   * Any references for images, text, help, etc.

1. [↑](#footnote-ref-1)