CS 547 Web Scripting

Assignment 2: Python enhanced Web Site – AztecA Book Publishing

Due Date: May 8th , 2015 5:30 pm PST

Points: 200

Description: Your Azteca Book Company website is doing great. Business is booking. Your publishers now want to add dynamic images to the site. In particular they want custom images with custom text suitable for sending to a print shop. Since the end product will be sent to a printing house, you can not use CSS to add / overlay the information.

1. Upload an image using python. (50 pts)

For this requirement you will need to modify your xampp installation to handle python scripts. Your upload script should only accept files types of jpg. You do not have to do deep inspections of the file, just verify that the upload files are of \*.jpg. The uploaded files will be stored in a subdirectory of your Azteca site named ./tmpmedia .

1. Create a thumbnail from the original image using python pillow module . (30 pts)

A thumbnail is a smaller version of the original image (usually one fourth of the original) You may have a setting / mechanism to save thumbnails as squares, or preserve the aspect ratio of the original. Typical sizes are 32x32, 64x64, 128x128, or 256x256 pixels .

1. Create a teaser image to display on the website (50 pts)

A teaser image contains dynamic text that is overlaid on the original image. This would be for marketing purposes to entice users to buy your book.

1. Create a book cover of the image. (70 pts)

A book cover is like a fold out pamphlet (image) suitable for sending to the book printing shop. The book cover should contain a front image, a spine image, and a back cover image. You may use the same image for the front and back. You may use the teaser image for these or create new images with text on the front and back.

1. Extra credit, add a watermark to the image (20 pts)

A watermark is a barely noticeable image or text that is embedded in an image. Watermarks are used for copyright purposes, to ensure that the copyright owner is credited for their work. Your publishers want to embed one image with a watermark.

1. Extra credit, explore the image processing libraries (50 pts)

Use the pillow image processing filter capabilities to image process the original images to create artistic effects on your images. Examples would be embossing, blurring, or edge detection filters.

1. Extra extra credit, learn how to read and save EXIF data (50 pts)

If the original file contains GPS exif data, persist that information to your website.

Other notes: It is expected that this assignment will be added to your website from assignment 1. you may integrate the file upload at any level, but it makes the most sense to only allow publishers to do this functionality.

Turning in your assignment

We will be using blackboard to turn in the assignment. Your files will be zipped up as a zip formatted archive and uploaded to your blackboard account.

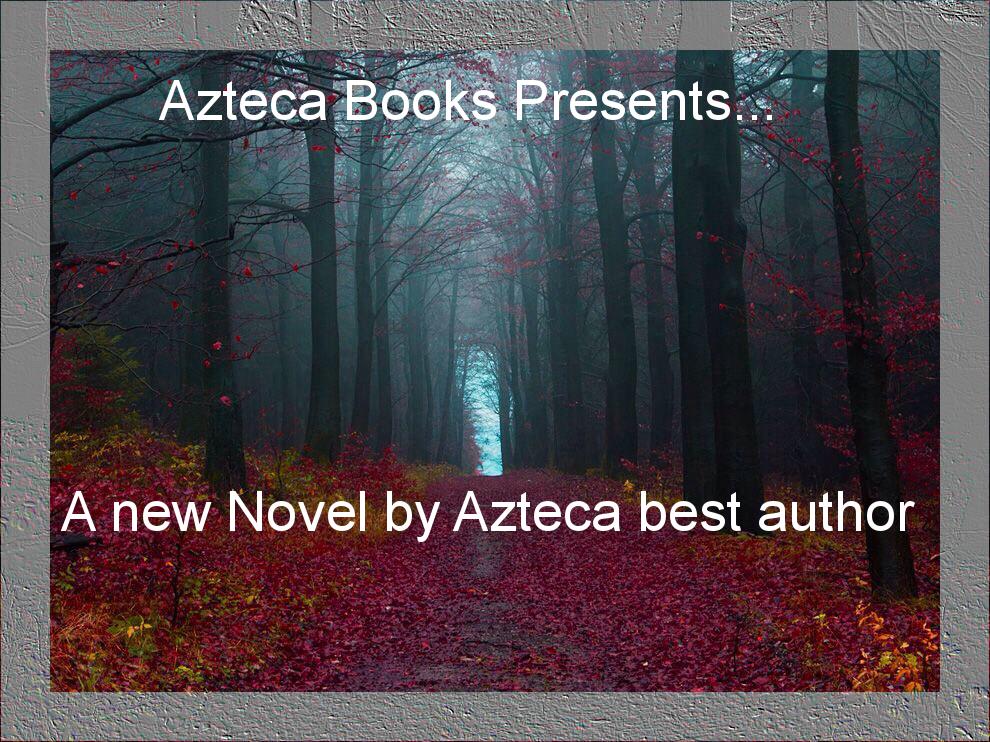
Further details will be announced on the website. This assignment will be amended.

Beloow are some sample images:

The original:



The Teaser with image processing



Example Book Cover pamphlet.

