

Development Task

The task is to build a web application to upload an image and return a representative number for the uploaded image and other images present in the server.

The root page at localhost:3000 should provide an interface to drag and drop an image and also, to select an image.

The uploaded image should be pre-processed to certain specifications within the server. For the image modification, you should use the shell code ``processing.sh`` which has been provided along with this task. No changes are required within this code yet you are free to do any if required. Assuming the image is stored in a folder named ``pngimage``, the command to run the code is:

```
`processing.sh pngimage/*`
```

You should store the 2 images ``img1.png`` and ``img2.png`` within the server say within folder ``data``. The images have been provided along with this task.

You must use the python code ``compute.py``. The function ``compute()`` returns a number which is presented to the user as a representation of the image. The 2 images stored in the server is read by this file and the relative location of which should be hardcoded within the code. The function ``compute()`` takes into account both the user image and the 2 images within the server. The code assumes that the input image is present within a folder with a specified path. It is up to you how you may handle the input image taking into consideration the concurrency between different users. You are expected to rewrite the function ``inputpath()``. The current code assumes the path to user input image is ``./pngimage/1.png``. Assuming the 2 images in server is stored in a folder named ``data``, the command to run this code is:

```
`compute.py data/*.png`
```

The output must be presented through AJAX on the same page.

Using the sample images, the output is should be **0.9932**.

For the task, you may use any framework based upon python. The code should be portable and you may go creative to any extend with the frontend. The overall end user experience should be a priority.

You must complete the task in at most 2 days. You must provide the instructions to test the code on a local device.