

FotoColor Documentation

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FotoColor is a website designed for users to upload an image and then choose from four color editing features. The features are (1) GRAYSCALE, which gives the image in gray-scale, (2) COLORSELECT, where users select four colors and a new image is produced in which each pixel is changed to the closest of the four selected colors, (3) COLORPOP, where users select four colors and a similarity threshold, and a new image is produced in which each pixel is kept the same if its color is within the similarity threshold for at least one of the four selected colors or changed to gray-scale if not within the threshold for any color, and (4) K-MEANS COMPRESSION, in which users select a number of colors between 2 and 10, and an image is produced that reduces each pixel to the closest mean cluster value.

The project is contained in the submitted folder and can be run in the CS50 IDE. To access the website, I ran the command `apache50 start ~workspace/Final` so that the server is able to find the `index.php` file. The `index.php` page contains a header where the user can navigate to the main page (`index.php`), an “about” page (`about.html`), and an “instructions page” (`instructions.html`). User is also able to upload an image here.

Unfortunately, my method of image processing has turned out to require quite a large amount of memory for each pixel, so only small images (under 250000 pixels is be safe). Once uploaded, the user is redirected to a page in which they can select from the features described in the first paragraph.