Report Analysis
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This report is related to image difference.I choose a dataset of 10 images of flowers.After that i select one image 500x500 and randomly generate (Range 1 to 5) n and m patches from image and store into separate folders.You can see below patches of m and n.

n patches

m patches

After that I started comparing the difference of these m patches with all n patches.As we know that in images each point is just coordinates. So I compute the difference between them.

$$\sum_{[i,j]\in R} (f(i,j) - g(i,j))^2$$

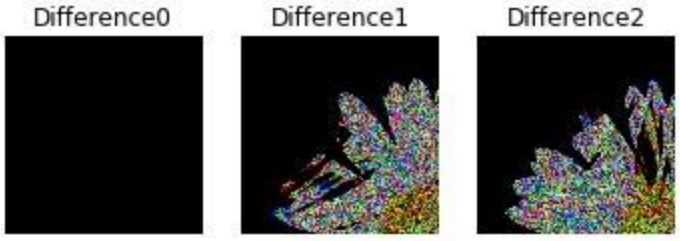
Sum of Squared Distance (SSD)

After computing the difference between images you can see the result in below:

```
 ...,
 [  0,   0,   0],
 [  0,   0,   0],
 [  0,   0,   0]],

...,

[[  0,   0,   0],
 [  0,   0,   0],
 [  0,   0,   0],
 ...,
 [100, 144, 121],
 [145,  65,  64],
 [164,   0,   0]],

[[  0,   0,   1],
 [  0,   0,   1],
 [  0,   0,   0],
```

Difference between m and n patches

You can check the difference between images.zero showing that matching surface and other all showing non-matching surface. As we know that range of intensity from 0-255 0 shows black color and 255 shows bright color which is white. So now we will display the difference of these matrices in the figure given below.



Difference Display of m and n patches

I conclude that the difference between images and also showing that matching image axis is represented with black color and other all non-matching axis with different color. As we discuss in class that if one image has matrix [2,2] and other same image has also matrix [2,2] so when we compute difference between two images it will gives you [0,0] matrix.We also discuss range of 0-255 that means 0 show dark color and 255 show bright color.So i display all differences in this report.