AREA CALCULATION: DONT MEASURE 06

Hello everyone, welcome again to the programming screen cast of area calculation. This particular programming screen cast i will be discussing another way of how to calculate area of Punjab using randomised method so i hope you have watched the previous videos and you know how to calculate the RGB values of the given image. One method is related to colour picker application and you just go to any online website and you find the RGB values which we used in the previous programming screen cast. But in this programming screen cast what would be doing would be using the automatic method the pythonic method of finding the RGB value of a particular image so i will be using this particular method. This method has already been explained in one of the previous programming screen cast so i hope that you have gone through all those videos so let me start with this programming screen cast so as i said i will be using the pythonic way to calculate the RGB values of a given image. So as an always let us import the image library from pil package so i will just write from pil import image. After that i also need to import random since we need to randomly select x and y values here after that i will open the image i write im as the variable im is equal to image dot open and as and parameter i should pass the image file our image file name is map hyphen zero one dot png so we have our image in the variable im, now in order to calculate the RGB values i need to convert this image to RGB matrix so what should we right here? As explained already i write some variable here RGB underscore im is equal to im dot convert and that should and you should pass RGB as a parameter here so that is done after that we will be using the method used in the previous programming screen cast i will take count of India is equal to zero, count of Punjab is equal to zero and we should also take a count here count is equal to zero now i need to have many number of iterations so i will take while count is less than equal to one lack as we did in the previous programming screen cast now what should we do here? We should select x and y values randomly here, in order to select the x and y values randomly here you should know the dimensions of the image. In the previous programming screen cast i showed you how can you know, how can you get to know the dimensions of the image you just go to the particular image and you right clock, right click on the image and go to the properties of the image, in properties of the image you will find the dimensions of the image. So we already have the dimensions of the image so i will write x is equal to random dot randint and in this you should write zero comma two four eight zero and you should also select you should also select the y value randomly so i will write random dot randint zero two seven three five, two seven three five so this is done and will take z as zero after that you need to store this RGB values in the variables RGB corresponding to the particular x and y coordinates so i will just write RGB underscore im that is the our that is your image converted to RGB matrix dot get pixel get pixel and in this i will write x and y, x comma y corresponding to x and y coordinate it will give us the RGB values and now we know the RGB values of the grey part as well as the black part so i will just write r is equal to equal to sixty here if it is sixty here then i should increase the counter of India, count underscore in equal to count underscore in plus one i should also increase the count variable here count is equal to count plus one else if r is equal to is equal to eighty here what should we write? You should increase the count of Punjab so you write count underscore Punjab is equal to count underscore Punjab plus one. You should also increase the count here count is

equal to count plus one after the you need to calculate the area of Punjab according to our previous randomised method so you just write area underscore Punjab here is equal to count underscore Punjab divided by count underscore IN that is India and you should multiply with area of India, so we have the precise area of India that is three two eight seven two six three so you should write three two eight seven two six three and now we need to print area of Punjab. So now let us try to run this program i will write area one dot py module run has oh sorry it should be int here so we have the area of Punjab is five three two one three the actual area is around five zero three six two i guess please check on the internet and it is somewhat closer to area of Punjab let me run it again we have four nine five eight five this is closer ever five one four eight two is very much closer so you can always increase the number of iterations and the accuracy will improve with increase in number of iterations so i hope that this programming screen cast is clear to you all i will just explain you this program again so as and always first of all you need to import the image library you need to import the random library after that you need to open the image the concerned image will be providing you with this image don't worry after that you need to convert this to RGB values after that what i initialise three count here, count of India, count of Punjab and simple count here that will keep a track of number of iterations so we are taking one lack iterations here you can always increase the number of iterations. We have the dimensions here dimensions of the image we have already explain how can you get to know the dimension of the image so i will pick x and y randomly in this particular range so i pick x from zero to two four eight zero and y randomly from zero to two seven three five. As already explain you can calculate the RGB value from that particular image using this particular method you get pixel so need to take that image RGB image and corresponding to x and y value it will give you RGB value we have already you already know that the RGB value of the blackish part there is sixty and around sixty and for the Punjab region it is the greyish region is eighty, so r is equal to is equal to sixty you need to increment the count of India and if it is eighty then you need to increment the count of Punjab after that you are just applying the method the randomised method explained in the very first video so we will just take the count of Punjab divide it by the count of India into the precise area of India that is three two eight seven two six three and then you can print the area of Punjab. I hope the previous videos and this video is are useful to you all, you have understood them all i just go through the videos first of all what we did was, we proposed a randomised method to calculate the area of Punjab after that we showed you how can you construct an image from for the given RGB values then we then we did programming screen cast other way around, first of all we had the RGB values and constructed an image now we had an image and we need it to find out the particular RGB value. We also showed you how can you do that. After that we proposed two methods of calculating the area of Punjab using the randomised method in pythonic way for this particular thing we had an image of which had the blackish region as the India part and greyish region as the Punjab part so what you can do here is we already know the RGB values of these two colours, using these RGB values we generated randomise random x and y values here according to this x and y values we calculated the number of dots that are placed in the Punjab region as well as number of dots that are placed in India region randomly. After calculating these two particular parameters we already given the area of India so we had the formula here which was explained in the very first video we did count of Punjab divided the

count of India into precise area of India and that gave us the area of Punjab. So i hope this method is clear to you all please refer joc wiki if you have any doubts. Thank you.