Color detection using OpenCV

MOTIVATION:

The aim of this project is to build an application that automatically detects the colors of different objects in an image by clicking on them.

DATA SOURCE AND EXPLORATORY ANALYSIS:

The dataset contains 865 rows and 6 columns which includes the color name, RGB color code values and hex color code values.

METHODS PLANNED:

All colors are made up of three primary colors – Red(R), Green(G), and Blue(B). Every color is defined within the range 0 – 255 with 256 values. So, there are millions of possible values for representing a color. The code is trained using a dataset with just hundreds of color values to bring out the best matching color. This project targets to find the most matching color by computing the minimum distance from the other possible colors.

VALIDATION PLANNED:

OpenCV is used for drawing appropriate bounding boxes when there is a mouse click by the user on the image. This is used for finding the RGB values at the particular pixel. The code would be tested with different test images and the results would be analysed by using the predicted colors from the project.