

Foundation, Lipstick & Eyeliner Recommender

Problem Statement

Every year thousands of testers are used by companies focused on beauty to enable customers to find the most suitable shade for their skin tone. However, this leads to wastage of millions of dollars, labor hours to make the products, endless amount of time spent by customers, and wastage of lots of resources that could be used for other purposes

Solution

We can make use of python to simplify this process, in order to recommend the most suitable foundation, lipstick & eyeliner based on the skin color. This can be installed in all boutiques that specialize in these products, in order to have consistency in the lighting. However, this can further be extended as an app that can be accessed over a mobile, in order to facilitate e-commerce purchases.

Brief Explanation Of The Code Used


- Packages such as **numpy, cv2, selenium, bs4, os, dlib, sys, pandas** were used
- The image was read using **Computer Vision**
- Before detecting the facial features, the picture was **converted to greyscale** in order to increase the accuracy and refining how well the features are detected
- Using the “**shape_predictor_68_face_landmarks.dat**” file, we were able to detect the facial landmarks
- Based on the image obtained the closest shade of foundation was found out based on the **RGB values** of the skin tone
- Using the computed RGB values, the site corresponding to the idle foundation was opened for direct purchase
- Since the project was done for a reputed international brand, we used their recommendations to open links to corresponding eyeliners & lipsticks
- The RGB values of the eyeliners & lipsticks were used in order to change the color of the eyeline & lips in order to give the user a virtual presentation of what those shades may look like

Example Of How It Works

Foundation=Medium 02

Eyellner=Bronze

Lipstick=101 Matte At Bat



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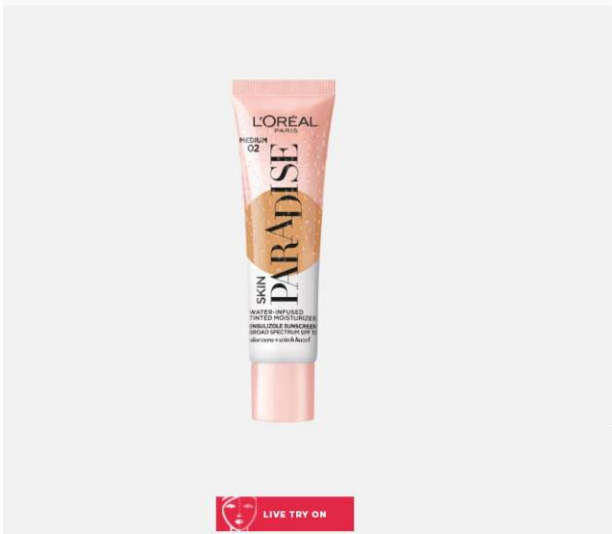
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