**ARTIFICIAL INTELLIGENCE PROJECT SYNOPSIS**

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**PROJECT TITLE : COLOR DETECTION IN IMAGES**

**PROJECT DESCRIPTION** :The "Colour Detection in Images" project is an artificial intelligence (AI) project that focuses on recognizing and identifying different colours in an image. The project uses deep learning algorithms to process and analyze images and then classify them into various colour categories.

The project involves several stages, including image acquisition, pre-processing, feature extraction, and colour classification. The system acquires an image using a camera or an image sensor in the image acquisition stage. In the pre-processing stage, the image quality is enhanced and any noise or distortion is removed.

In the feature extraction stage, the system identifies the key features of the image that are relevant to colour detection, such as pixel values and colour histograms. The system then uses deep learning algorithms, such as convolutional neural networks (CNNs), to learn the patterns and characteristics of different colours and classify the image into various colour categories.

The project has many practical applications, including in manufacturing, retail, and security. For example, in manufacturing, the system can be used to detect different coloured components on a production line and sort them accordingly. In retail, the system can be used to identify different coloured products on a shelf and help with inventory management. In security, the system can be used to detect different

coloured objects in a surveillance video feed and alert security personnel to potential threats.

In conclusion, the "Colour Detection in Images" project is an exciting application of AI and deep learning with practical applications in various industries. The project involves several stages, including image acquisition, pre-processing, feature extraction, and colour classification, and has the potential to improve efficiency and accuracy in many areas.

**CONCLUSION** : We will be able to identify which colors are present in a picture or an image.