

# Smart Agent Framework for Color Selection of Wall Paintings



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**Abstract** Smart color selection agent for wall painting is extremely useful for people while selecting desired colors. In traditional approach, for painting the house/building, the physical agent on behalf of company visits customer site and provides bulky wall painting color catalog. However, the approach many times results customer dissatisfaction due to technical/manual mistakes. ‘Smart Agent Framework’ developed in this paper addresses this problem by providing all details of the selected color at customer site itself. This in turn reduces the time and human effort required for both customer and company. As our framework is built on Python platform, the agent is robust, scalable, and portable. For our experimentation, we have created a dataset containing 860 colors. Since the agent is embedded with Google Text-to-Speech (gTTS), customer will get auditory response for his/her color selection. The three best matches were provided to enhance the satisfaction as well as to avoid manual/technical errors.

**Keywords** Color detection · Text-to-Speech · RGB values

## 1 Introduction

The procedure of detecting the name of any color is known as color detection. The brain and eyes of humans work together to transform light into color stimulus. Firstly, the signal is sent to the brain from the light receptors which are present in eyes of a human being. Then, human brain recognizes the color that is seen. Humans have mapped certain lights with their color names. A similar strategy is used to detect color names. Any color is a mixture of primary colors (red, green and blue). A dataset which contains the color names and its values is used in this project.

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