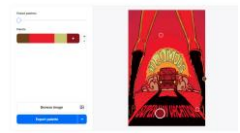
1. Introduction

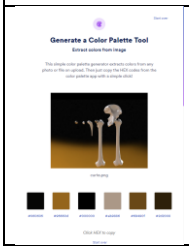
The aim of this project is to build an Image pallet generator, that is a program that receives an image as input and outputs a list of the colours according to the image in order of usage and in format RBG. Coloured pallets are one of the most important aspects in design (https://www.invaluable.com/blog/art-movements-painters-palettes). Choosing can be a somewhat difficult process as it requires a trained eye to notice what colours combine with another's, void others that provide clashing and look unnatural as well as the emotional power that conveys and its overall combination within the art. (https://www.houseofcolour.co.uk/history)

With new age computers image are reduced to pixels, that are in turn reduce to a binary code, so like this and with help of serialization methods it is possible for computers to organize and extract the most common colours used in an image and in turn easier for the design er find colours that combine with the image.

2. Market

For the market research we looked at similar sites already in the market to determine what's the competition and what's are the trends that the products follow and why.

Example	Name	Pros	Cons
	http://www.coolphptools.com/	Works well Easy to build free	Not secured Not super well design
	https://coolors.co/image-picker	Easy to understand AI pallets picker Range of options free	Lack of custom properties of extraction
	https://www.canva.com/colors/color-palette-generator/	Works Easy to understand design	Lack of custom settings 1 pallet

	https://color.adobe.com/create/image	Good design Works well Gives categories to pallet Easy save	Does not show top used colored
	https://palettegenerator.com/	Works well Display a graph for understanding Allow for chose nr of coloures	Lack of options Bad design
	https://brandfolder.com/workbench/color-palette	Basic	Basic Lack of information

3. Target

Different types of persons can be interested in this program. Mainly all types of artists or people dealing with choosing a colour for a pre-establish idea can use find helpful this concept, however graphical designers, and web designers are the most common to use this tool as they are more connect with digital drawing and develop fewer abstract works. The idea is to construct an easy to navigate program that receives an image and outputs the most common colours RBG present in the image. This concept can save a huge amount of time opening ideas for their work, this work will be build based on python and numpys image extracting features.

4. Design Specifications

The product requirement list (Table 2) gives me a clear information about important features that must be thought of when creating a product. It also showed me about the thought process required when developing the product.

D- Stands for demands. These are requirements that are a must, they must be followed and executed when making sketches and coming up with ideas, such as health and safety requirements they are a must for all ideas to be developed.

W- Stands for wishes. These are requirements that, as a designer, we want our product to have.

Requirements List Pallet Image Generator	
D	*Easy to use and navigate*
D	*Build a website*
D	*Use module numpy and python*
D	*Receives an image*
D	*Outputs the most used 5 colours*
W	*You can change the number of colours in the pallet*
W	*Can save the colours in text file*
W	*Tells the hexcode as well*

Flow chart

Flow chart for layout the logic involved in the program.