

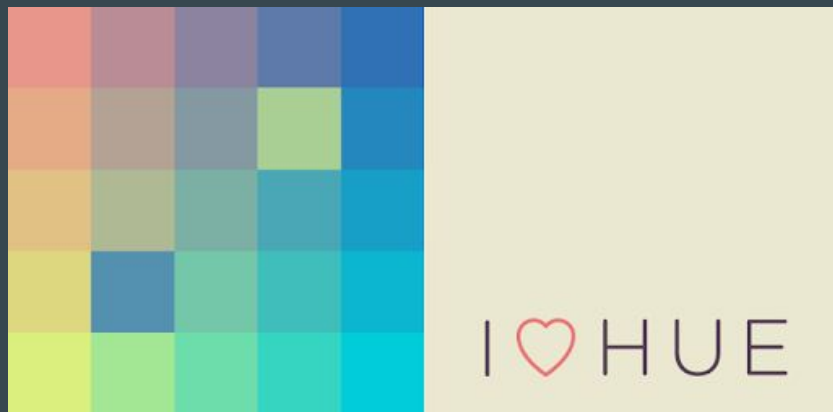
PastelCobra

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Napasai Sutthichutipong	6010545811
Wisa Powtongchin	6010545901
Sorrawit Tantharatana	6010545943

Motivation

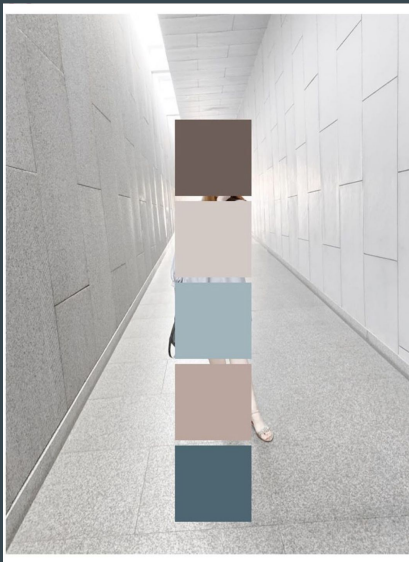
“I ❤️ HUE”, it’s a viral game from one of our group members name Book32, he is addicted this game then, he shared us to play for a while. The game make us feels would like to arrange the color on everywhere all the time and also we want rearrange the color on our Instagram profile too!



Motivation

We have an ideas to improve the overall tones of the pictures for user that want to know their tones and RGB color.

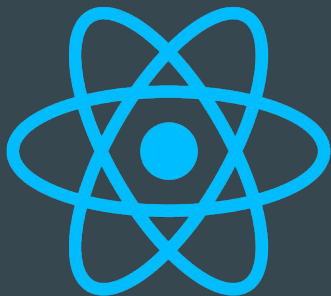
PastelCobra we will show Tones(Palette Color) and a graph of RGB color.



Overall Architecture

React & JS

We use react on front-end after we get the token from Instagram API.



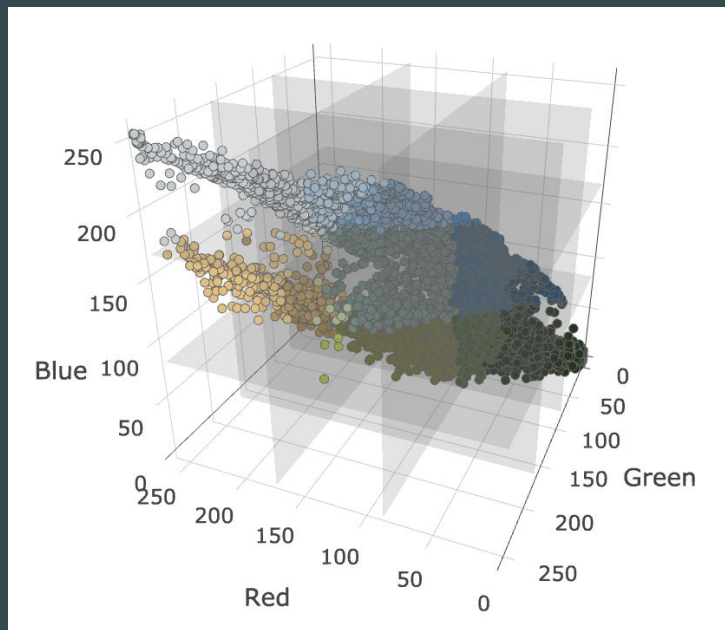
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Rest api

We use on back-end in order to GET and POST from Instagram API

POST
GET
PUT
DELETE
...

Histogram Binning



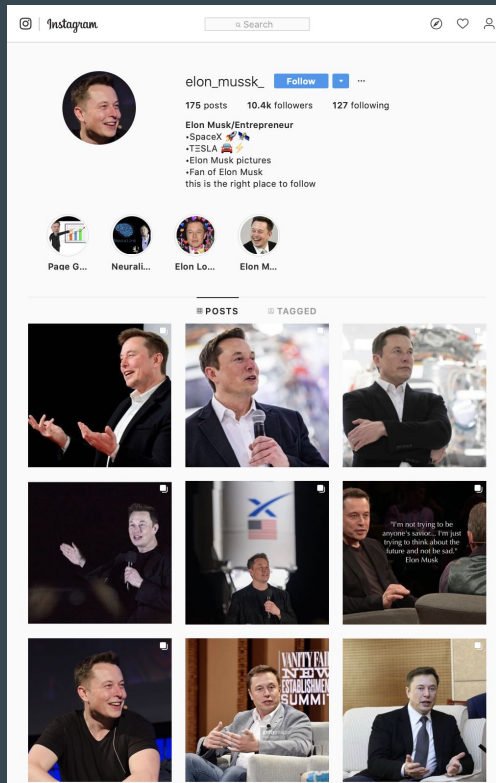
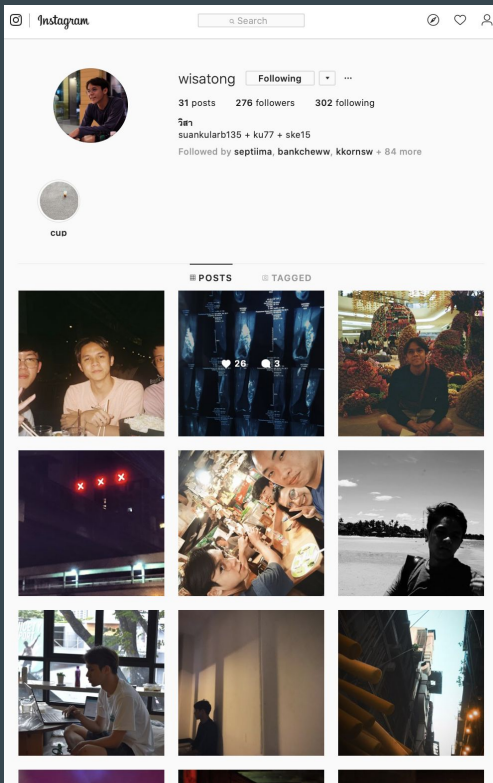
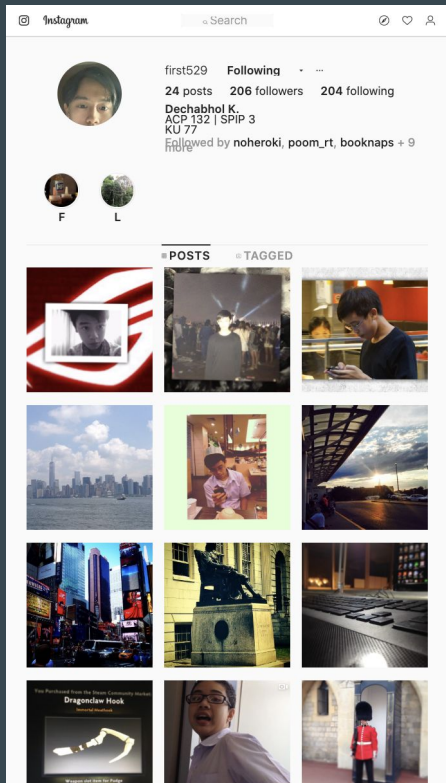
Data Sources & Data Collection Mechanisms

Collection Mechanisms

We collected the data from Instagram. Instagram API first we get a user id and then go to get all user's image(s) id, and get the link for a photo.

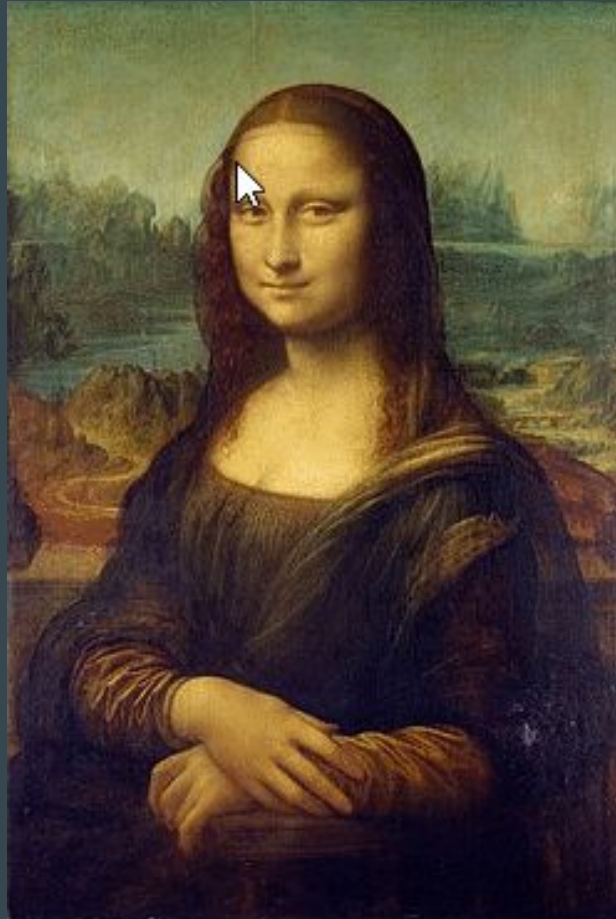
We collected the data from Instagram. We use Instagram API use to get our user media.

Data Sources



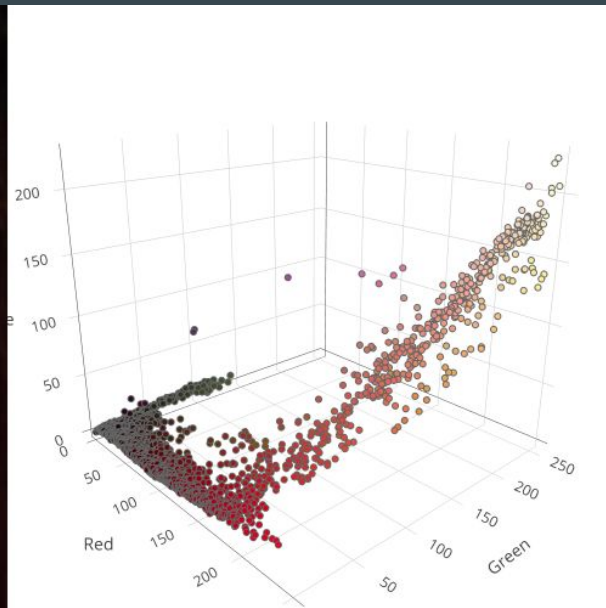
Collection Mechanisms

```
1 import axios from 'axios';
2 import queryString from 'querystring';
3
4 /** https://developers.facebook.com/docs/instagram-basic-display-api/getting-started#step-5--exchange-the-code-for-a-token */
5 export async function getToken(code) {
6   const { APP_ID, APP_SECRET, REDIRECT_URI } = process.env;
7   return axios.post('https://api.instagram.com/oauth/access_token',
8     queryString.stringify({
9       app_id: APP_ID,
10      app_secret: APP_SECRET,
11      redirect_uri: REDIRECT_URI,
12      grant_type: 'authorization_code',
13      code: code
14    }},{ headers: { 'Content-Type': 'application/x-www-form-urlencoded'}}
15  );
16 }
17
18 /** https://developers.facebook.com/docs/instagram-basic-display-api/reference/me */
19 export async function getUserId(token) {
20   return axios({
21     method: 'get',
22     url: 'https://graph.instagram.com/me',
23     params: {
24       fields: 'id,username',
25       access_token: token
26     }
27   });
28 }
29
30 /** https://developers.facebook.com/docs/instagram-basic-display-api/reference/user/media */
31 export async function getUserMedia(token, userId) {
32   return axios({
33     method: 'get',
34     url: 'https://graph.instagram.com/${userId}/media',
35     params: { access_token: token }
36   });
37 }
38
39 /** https://developers.facebook.com/docs/instagram-basic-display-api/reference/media */
40 export async function getMediaUrl(token, mediaId) {
41   return axios({
42     method: 'get',
43     url: 'https://graph.instagram.com/${mediaId}',
44     params: {
45       fields: 'id,media_type,media_url,permalink',
46       access_token: token
47     }
48   });
49 }
```

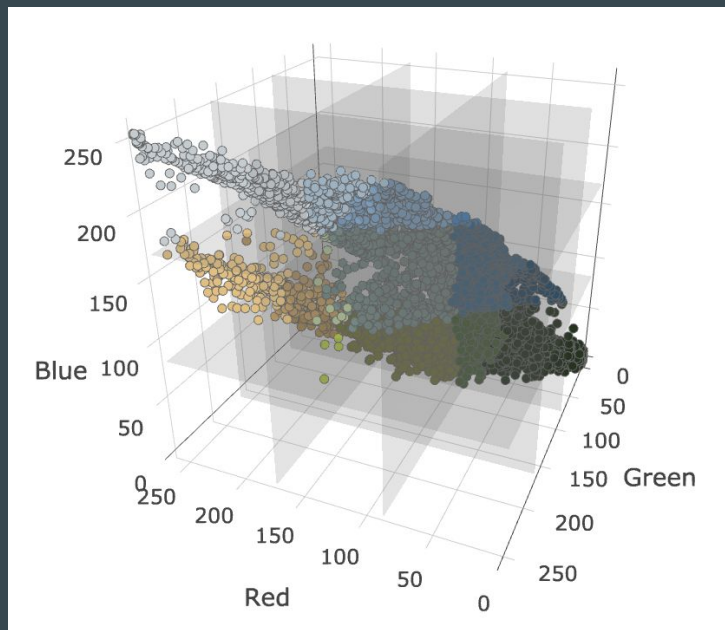


Data visualization

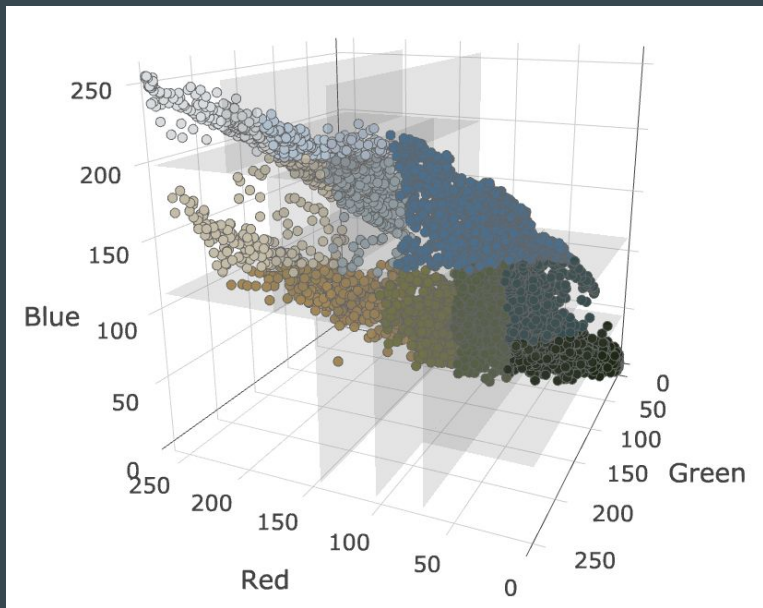
Tone palette color, graph of rgb color



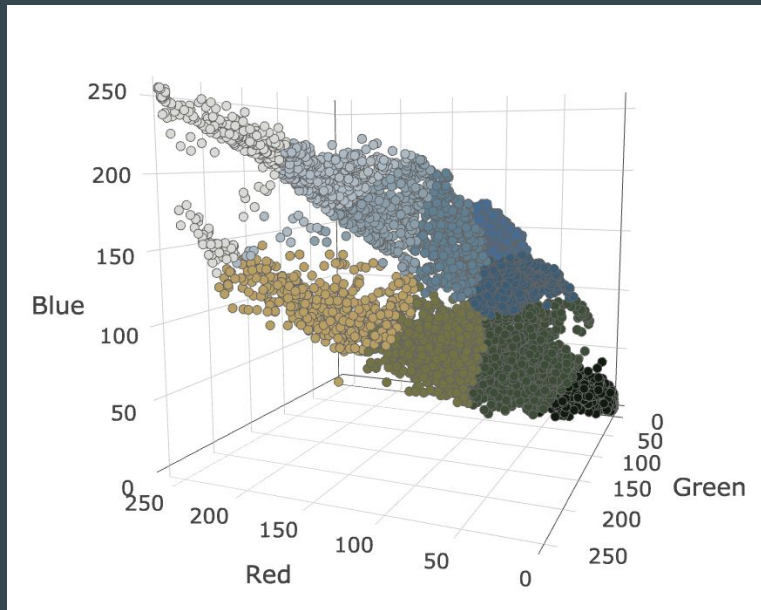
Histogram Binning



Median cut space partitioning



K mean clustering



Reference

[https://github.com/mattnedrich/
palette-maker](https://github.com/mattnedrich/palette-maker)