Cited from: *https://www.needpix.com/photo/98172/*

Choose Diamonds Wisely

Visualize the price behind diamonds

Brenna Yin
Ting Ye
Yijun Yang

Cited from: *https://www.publicdomainpictures.net/e*

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Diamond Features

What makes Diamond valuable?

02

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How does diamonds market look like?

03

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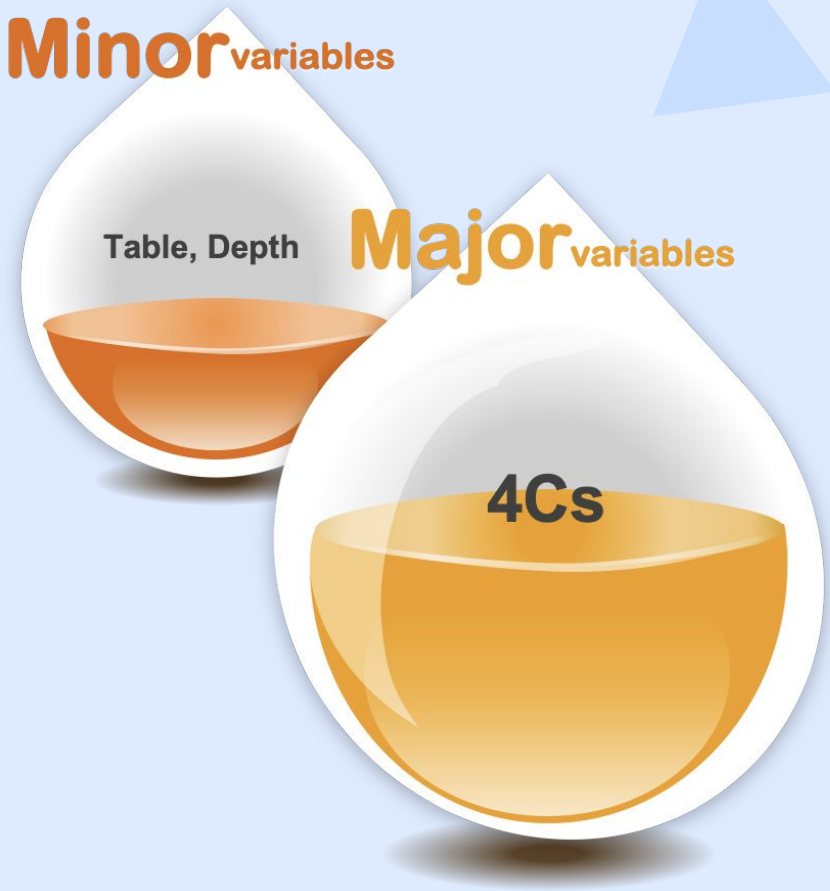
How each variable contributes to the price?

04

Conclusion

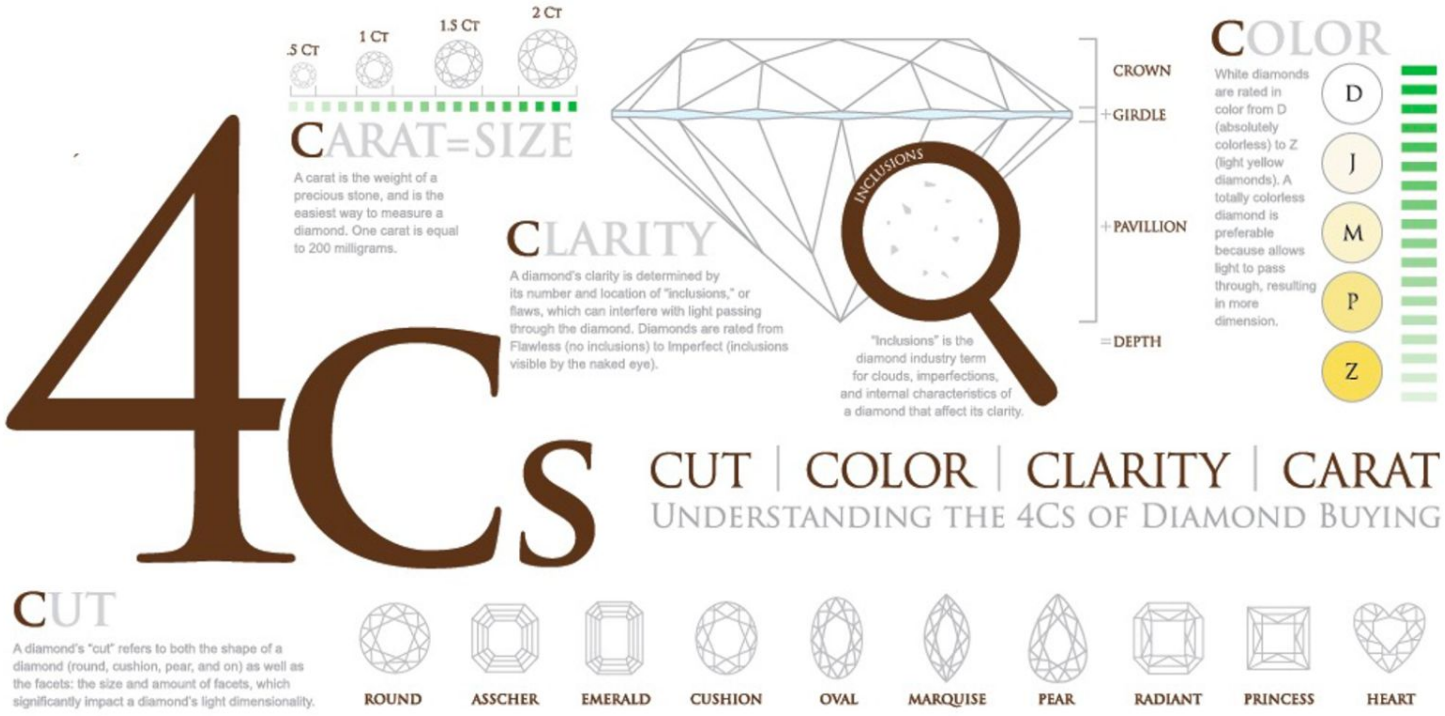
Choose your “diamond” step by step!



01

Diamond Features

Major Variables: 4Cs



https://shira-diamonds.com/about/education/4-cs/

2st C: CUT

Cited from: *https://yourdiamondteacher.com/diamond-4cs/cut/*

2st C: CUT

Cited from: *https://www.brilliance.com/education/diamonds/cut*

3rd C: COLOR

Colorless	Near Colorless	Faint	Very Light	Light
D-F	G-J	K-M	N-R	S-Z

Cited from: *https://www.brides.com/diamond-color-chart-5093397*

3rd C: COLOR

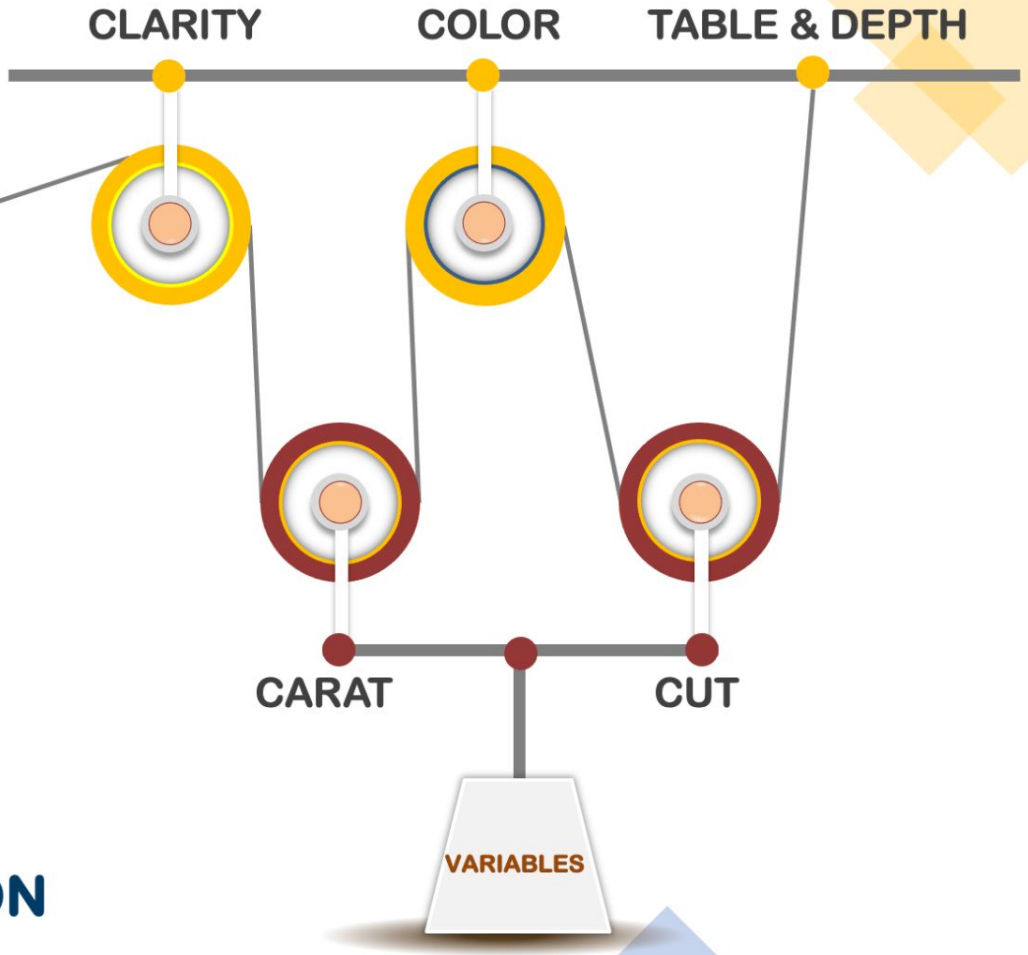
Cited from: *https://www.naturallycolored.com/diamond-education/diamond-grading/diamond-color-chart*

4th C: CLARITY

Cited from: *https://www.estatediamondjewelry.com/diamond-clarity/*

DIAMOND SELECTION

VALUABLE
COST-EFFECTIVE



Diamond Pic Cited from: *https://www.brilliance.com/education/diamond-shape/round*

Minor Variables: DEPTH and TABLE

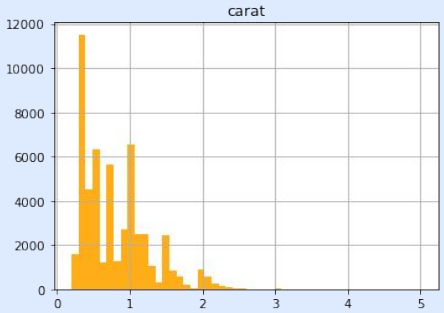
Depth % Range for Round Cut Diamonds

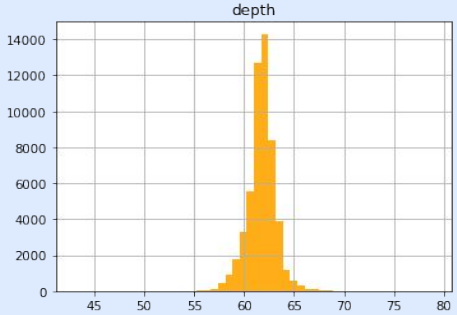
Ideal	Excellent	Very Good	Good
63-59.5	63.5-59	64-58	65-57.5

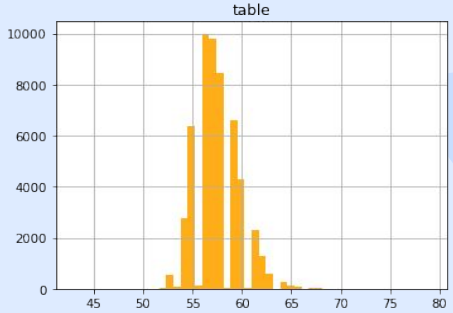
Table % Range for Round Cut Diamonds

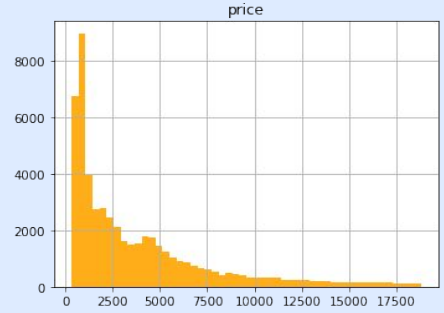
Ideal	Excellent	Very Good	Good
59-54	60-53	61-52	63-52

Cited from: *https://www.brilliance.com/education/diamond-shape/round*

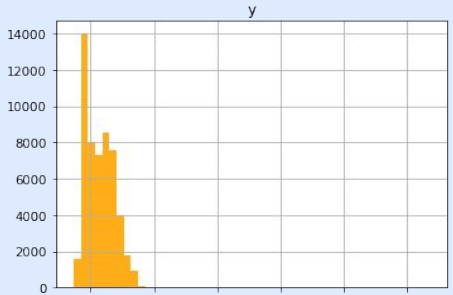


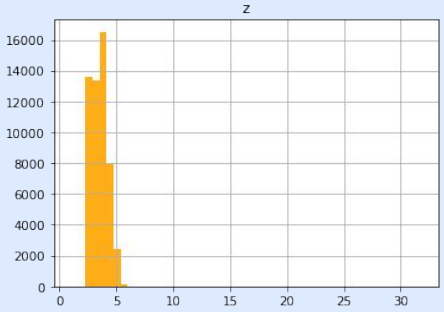


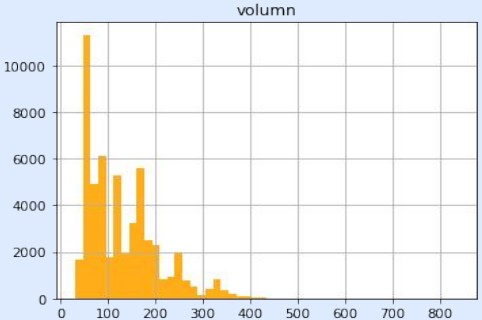


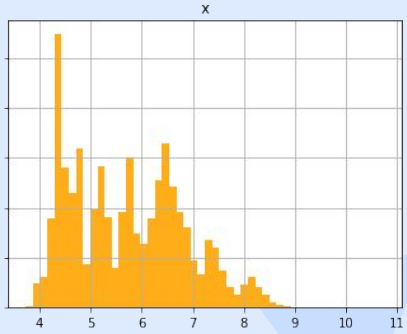


DISTRIBUTION



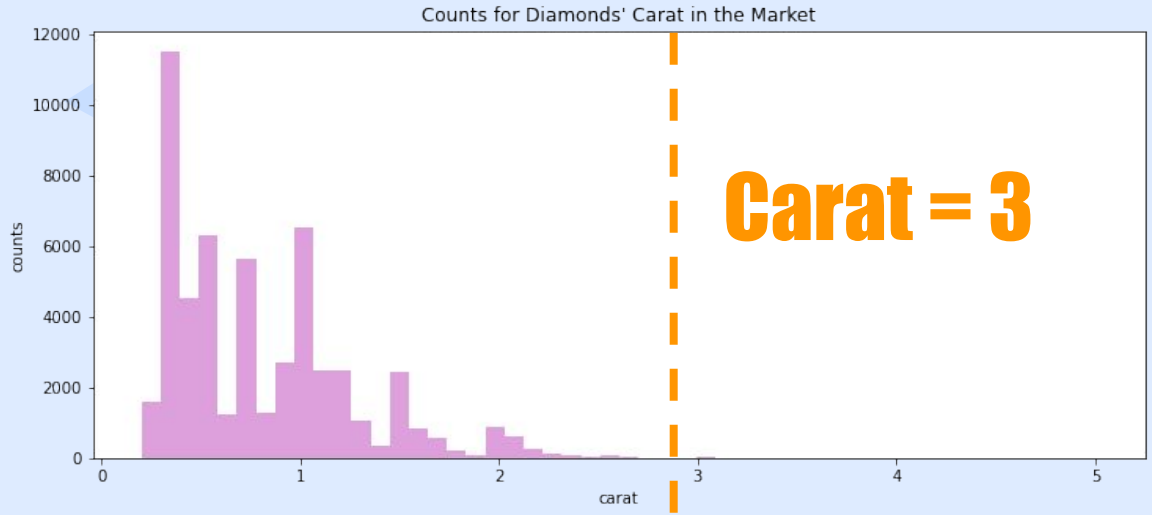


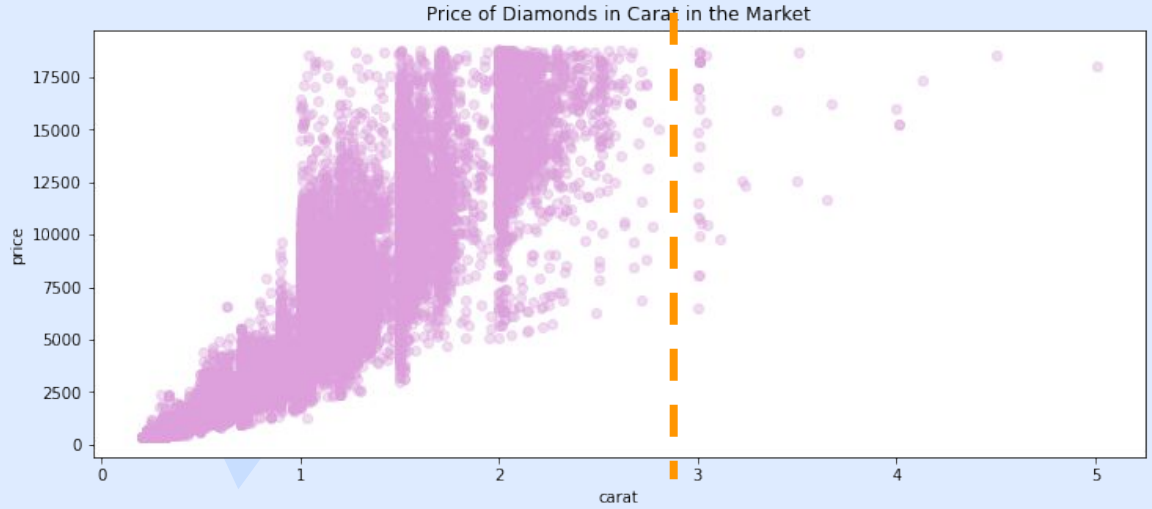




02

Market Analysis



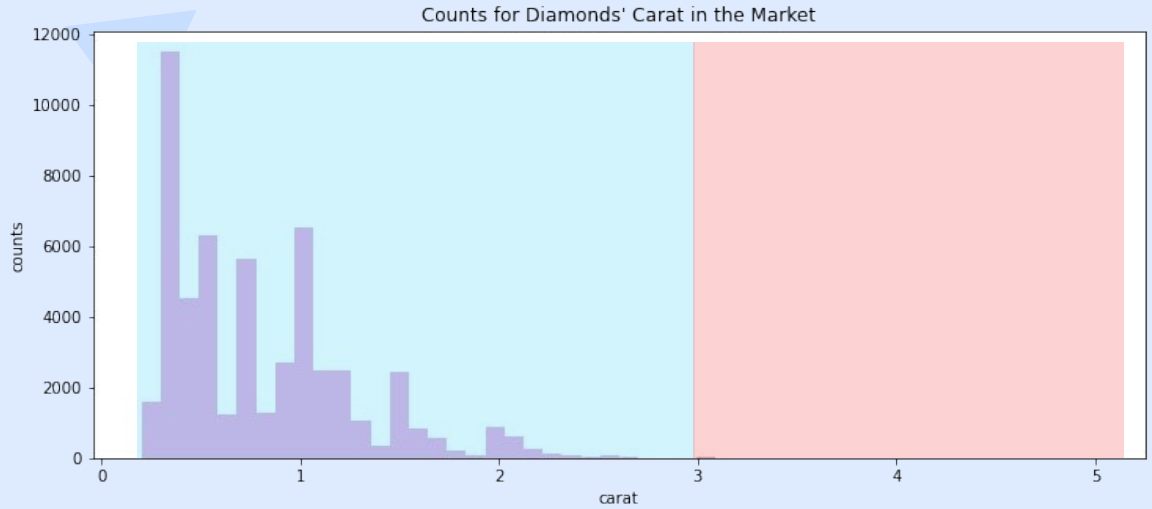


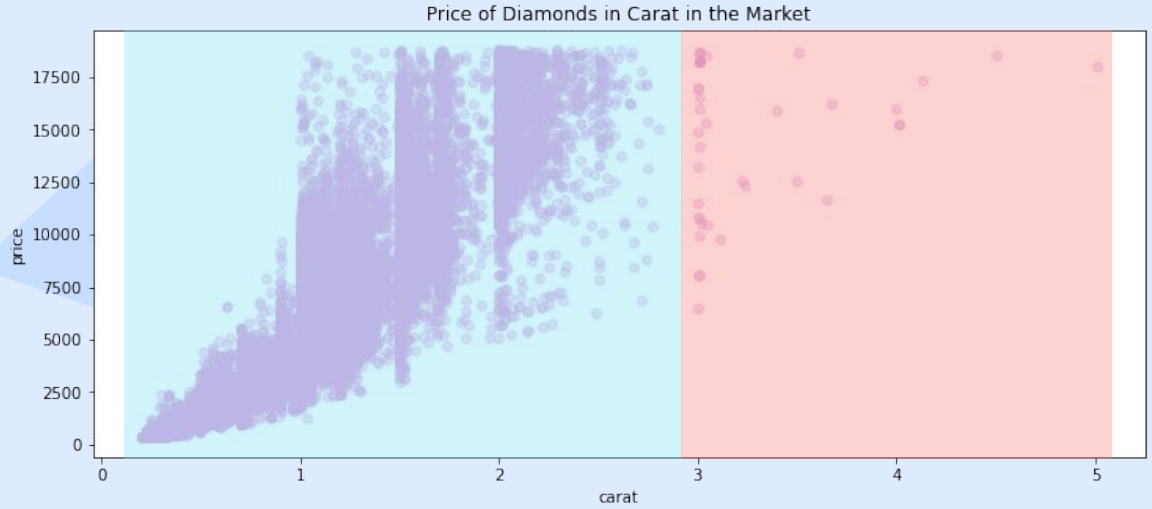
Distribution over “Carat”

Market Shares

General Products

“Price” over “Carat”





Fine Jewelry

"Luxury";
Less Choices;
"First Come, First Serve";
Supply < Demand;

Threshold: 3 Carat

Jewelry

"Economic";
Plenty of Choices;
Trade-offs are needed;
Demand > Supply;

Reminder on Color Plate

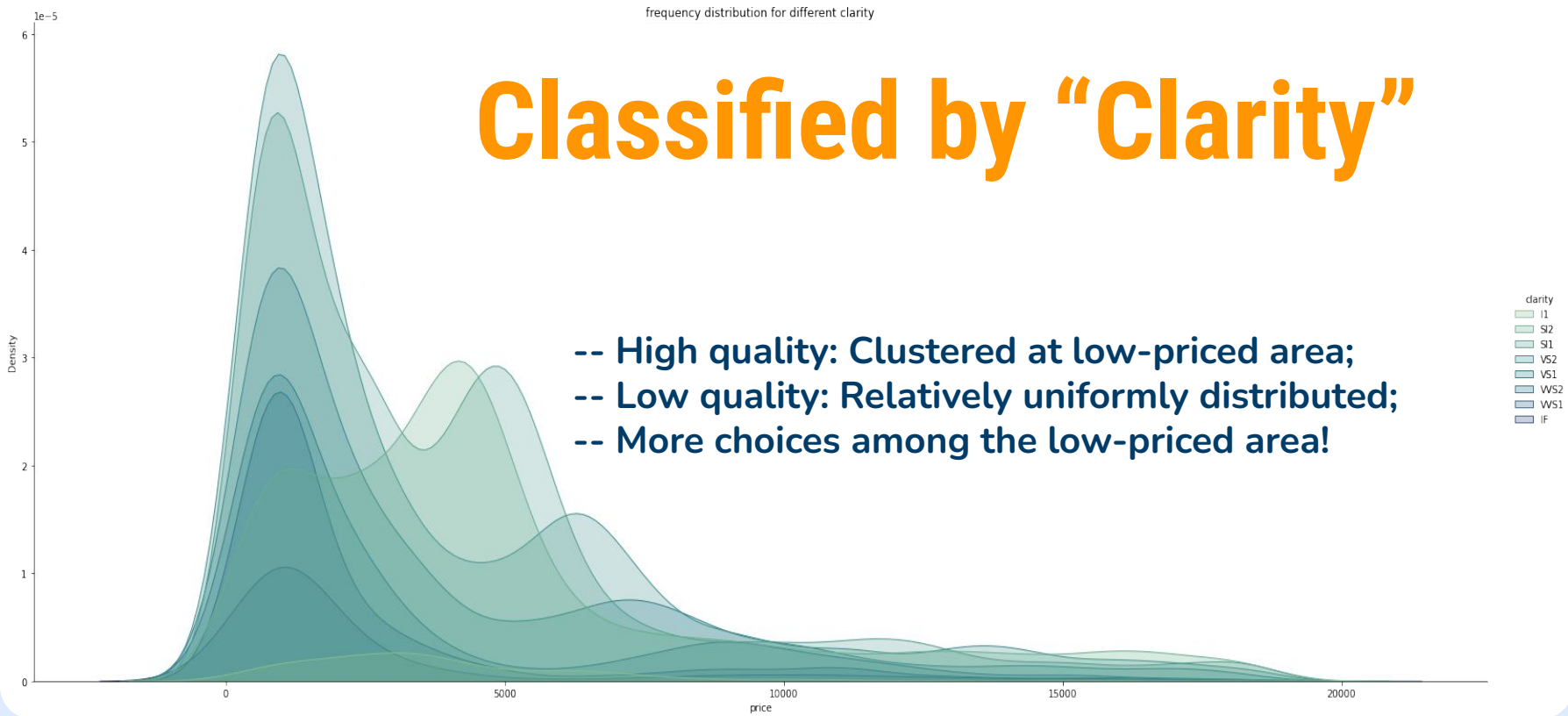
In the following visulizations

- Lighter color represents higher quality for that feature
- Darker color represents lower quality for that feature

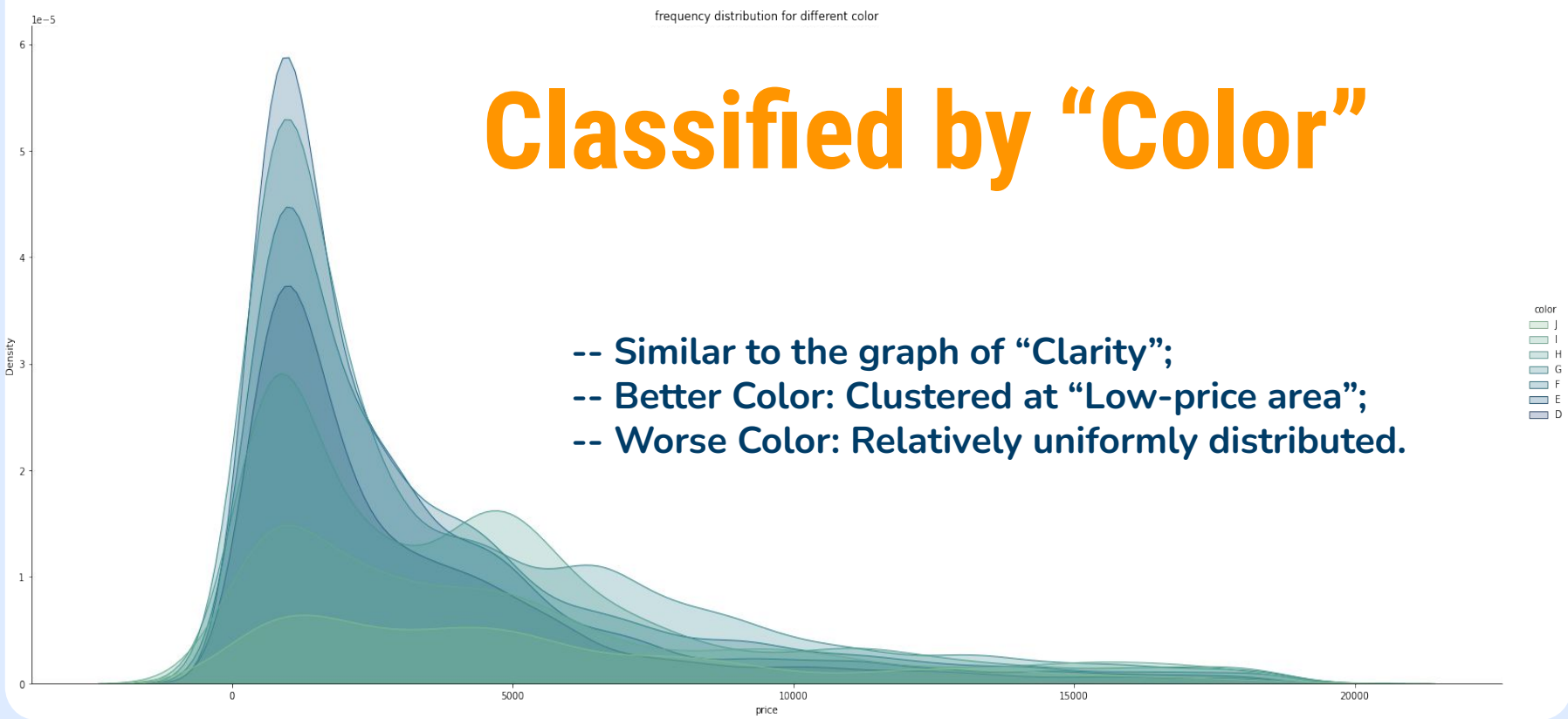
Classified by “Cut”

-- Clustered at the “Low-price area”;
-- Fewer Choices at the “Luxury market”;
-- Higher-quality diamond among “Low-price market”.

Classified by “Clarity”



-- High quality: Clustered at low-priced area;
-- Low quality: Relatively uniformly distributed;
-- More choices among the low-priced area!



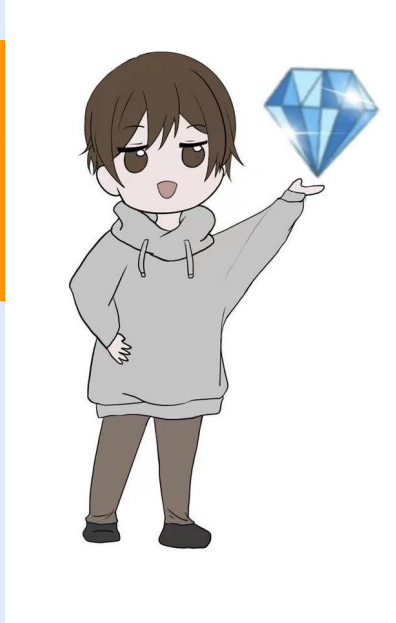
Classified by “Color”

-- Similar to the graph of “Clarity”;
-- Better Color: Clustered at “Low-price area”;
-- Worse Color: Relatively uniformly distributed.

Luxury or Not ?

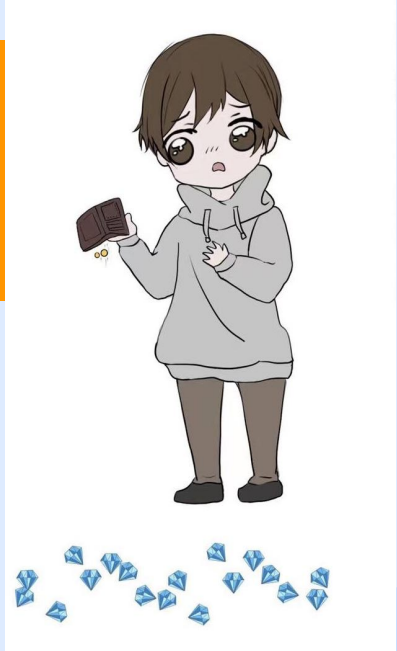
≥ 3 CARAT

More rely on resources

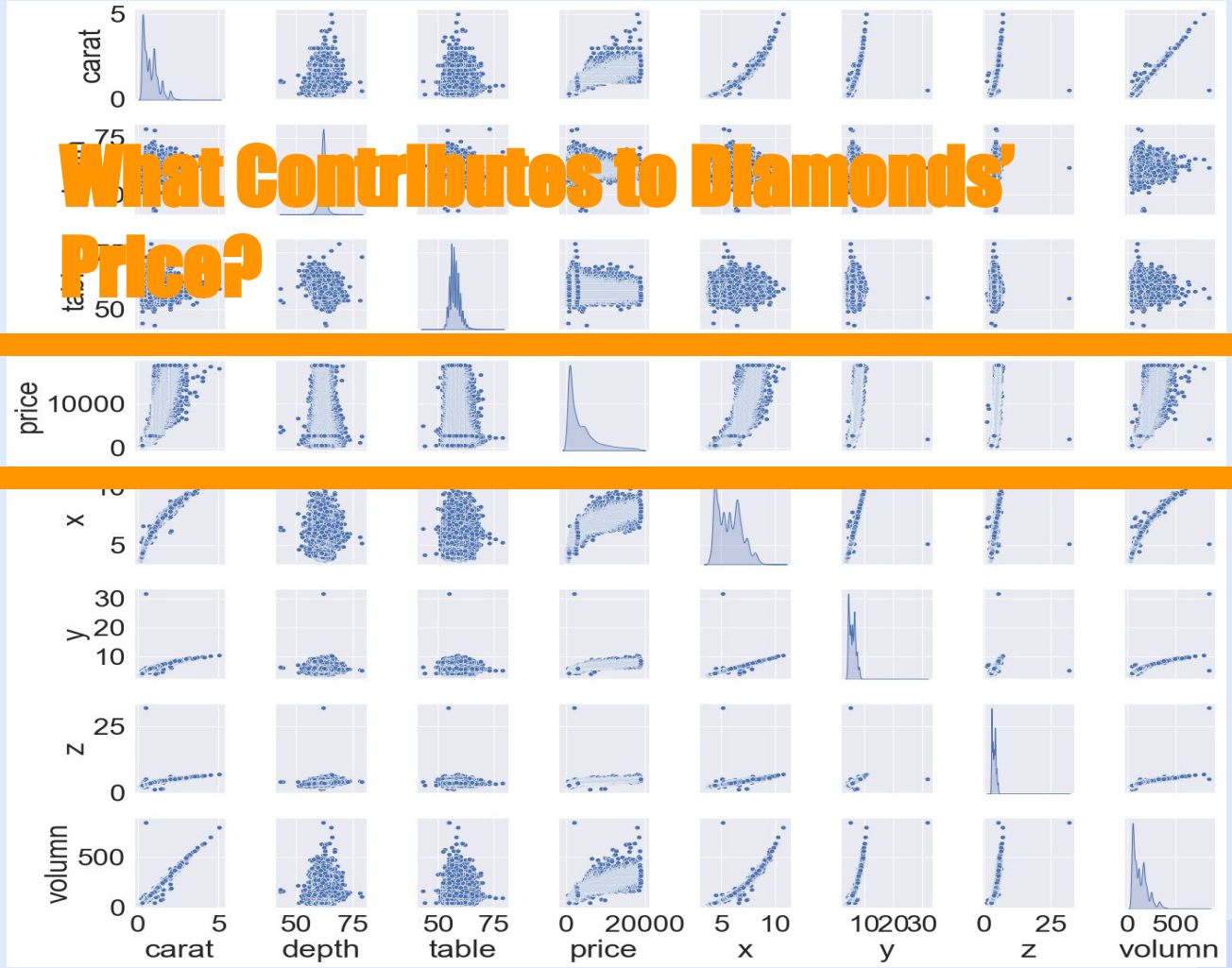


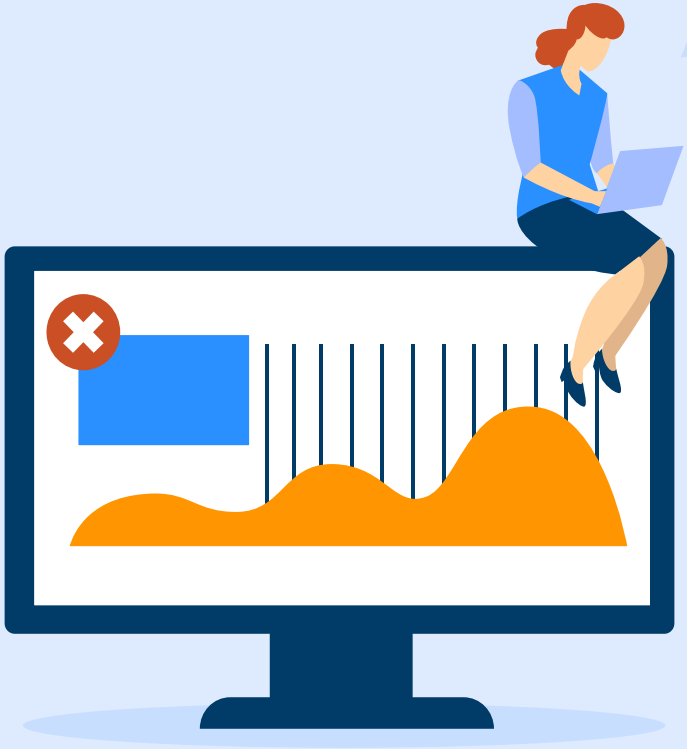
< 3 CARAT

Too Many Choices!



What Contributes to Diamonds' Price?

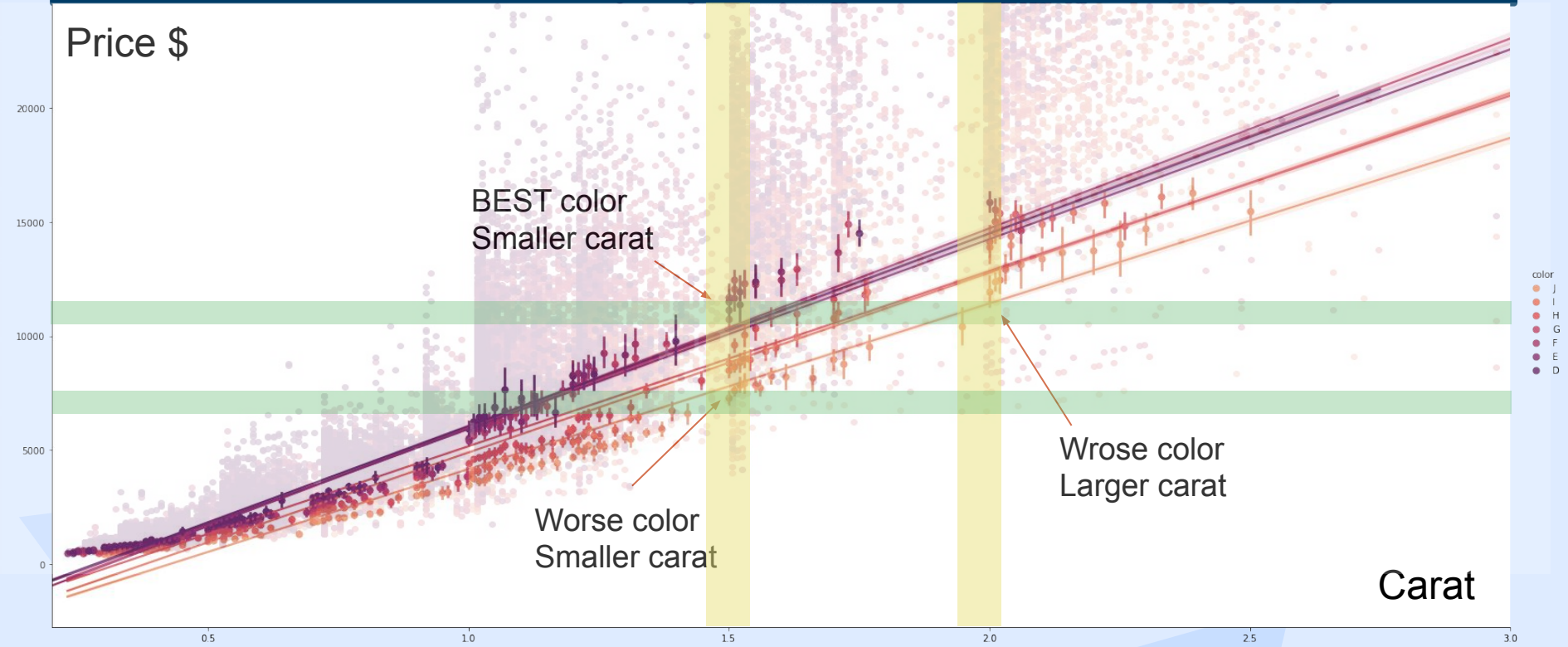




03

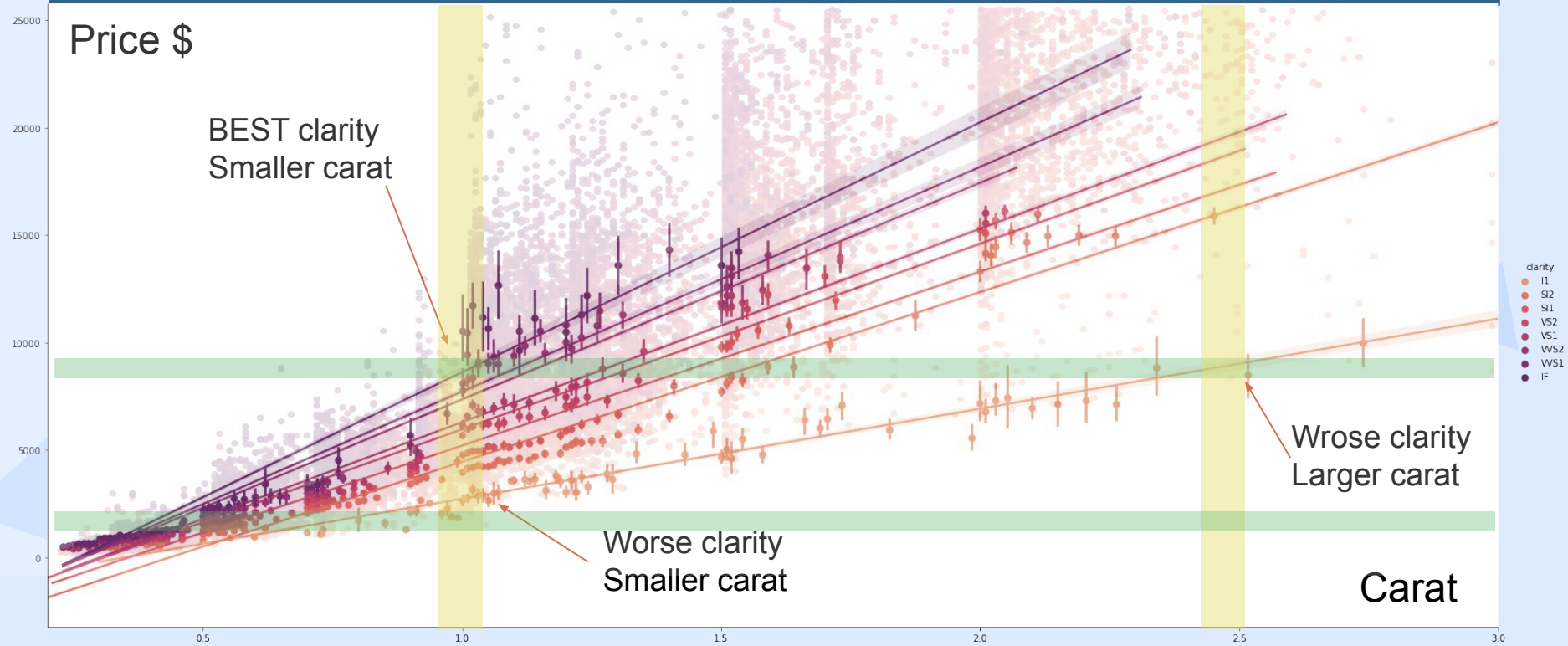
Detailed Analysis

Diamonds of different COLOR



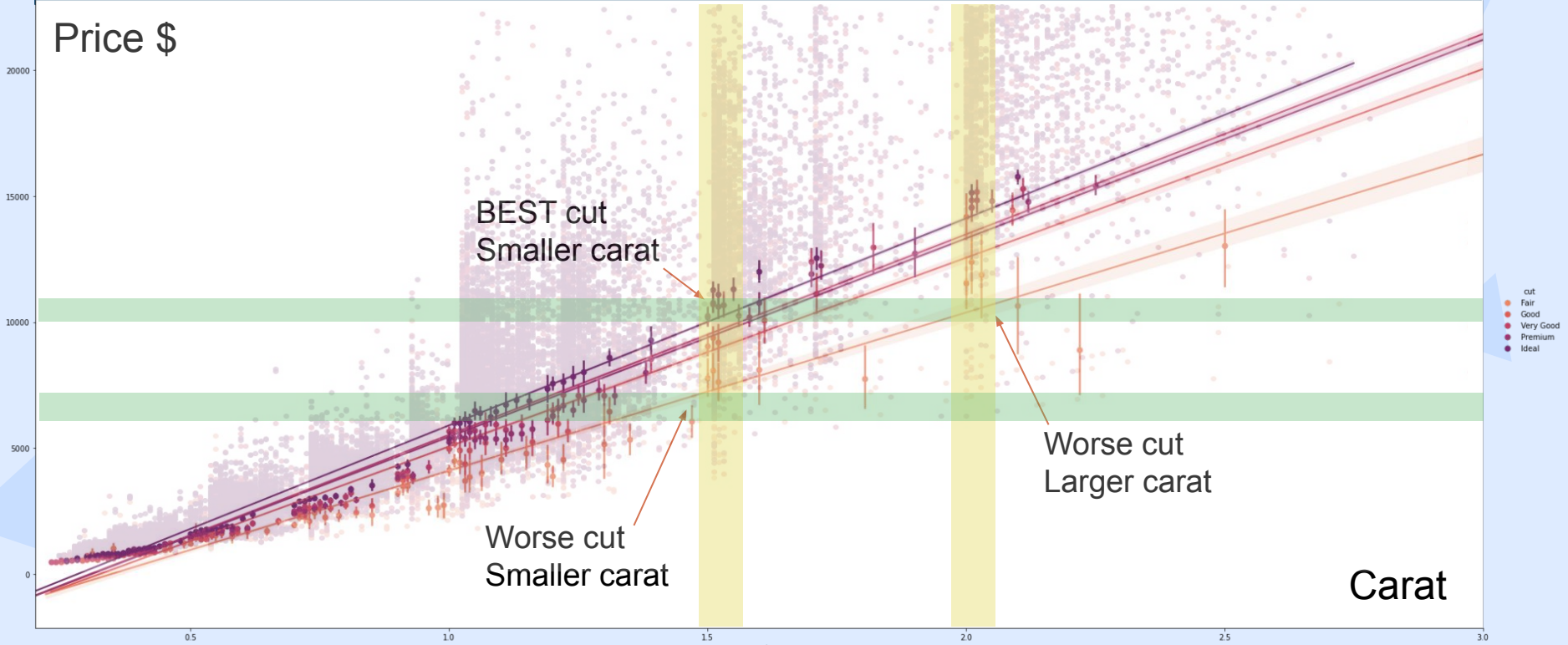
Color lines are close to each other, so trade-off here.
Spend a little bit more then you get the BEST color.

Diamonds of different CLARITY



Clarity lines are away from each other, so NO trade-off here.
You need to spend much more to get the better clarity.

Diamonds of Different CUT



Cut lines are also close to each other, so trade-off here.
Spend a little bit more then you get the BEST cut.

Price VS. Carat

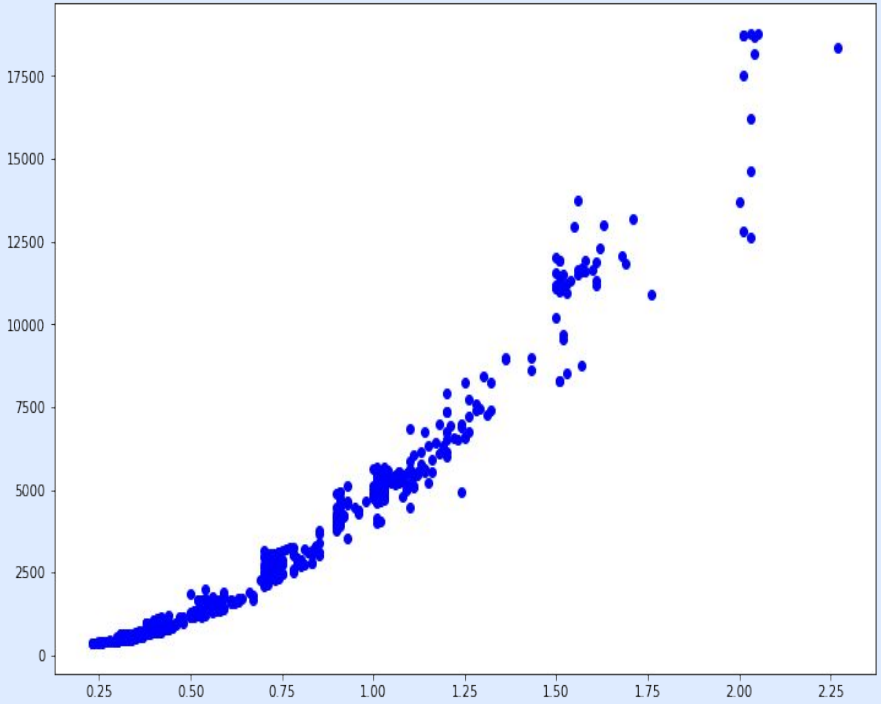


Table & Depth

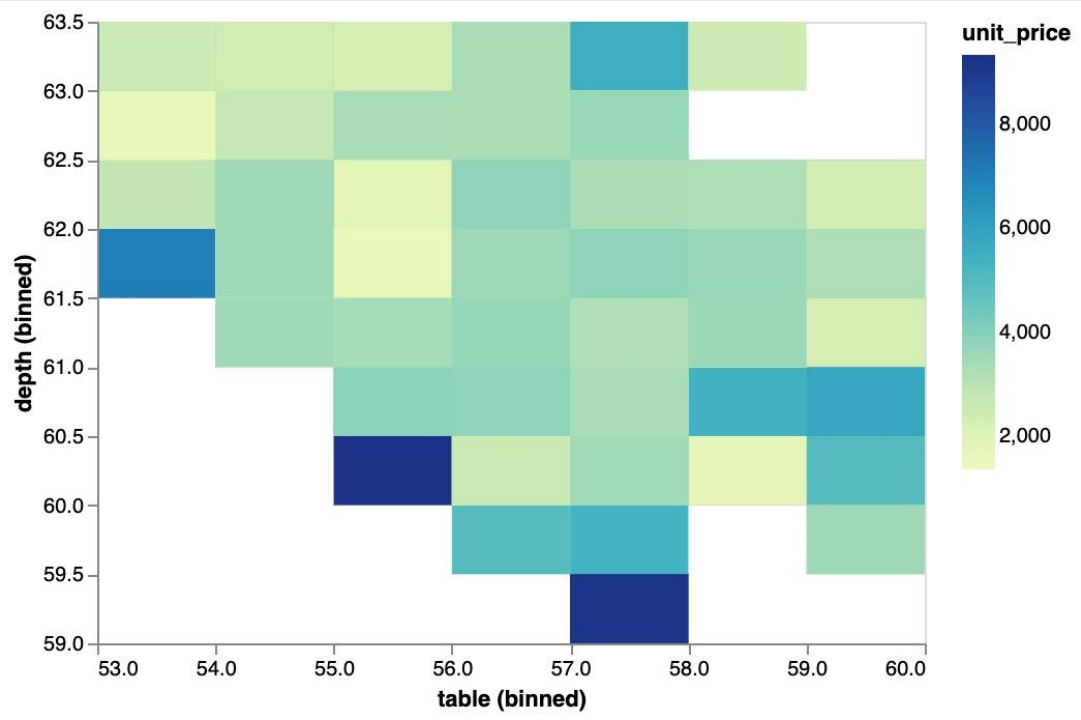
Color -- G

Clarity -- SI1

Cut -- Ideal

660 Valid data points!

Price & Table & Depth



Observations:

-- Has a “peak”;

-- Not a Significant Element.

04

Conclusion

DECISION GUIDE

START

STEP 1:
Luxury?
(> 3 Carat?)

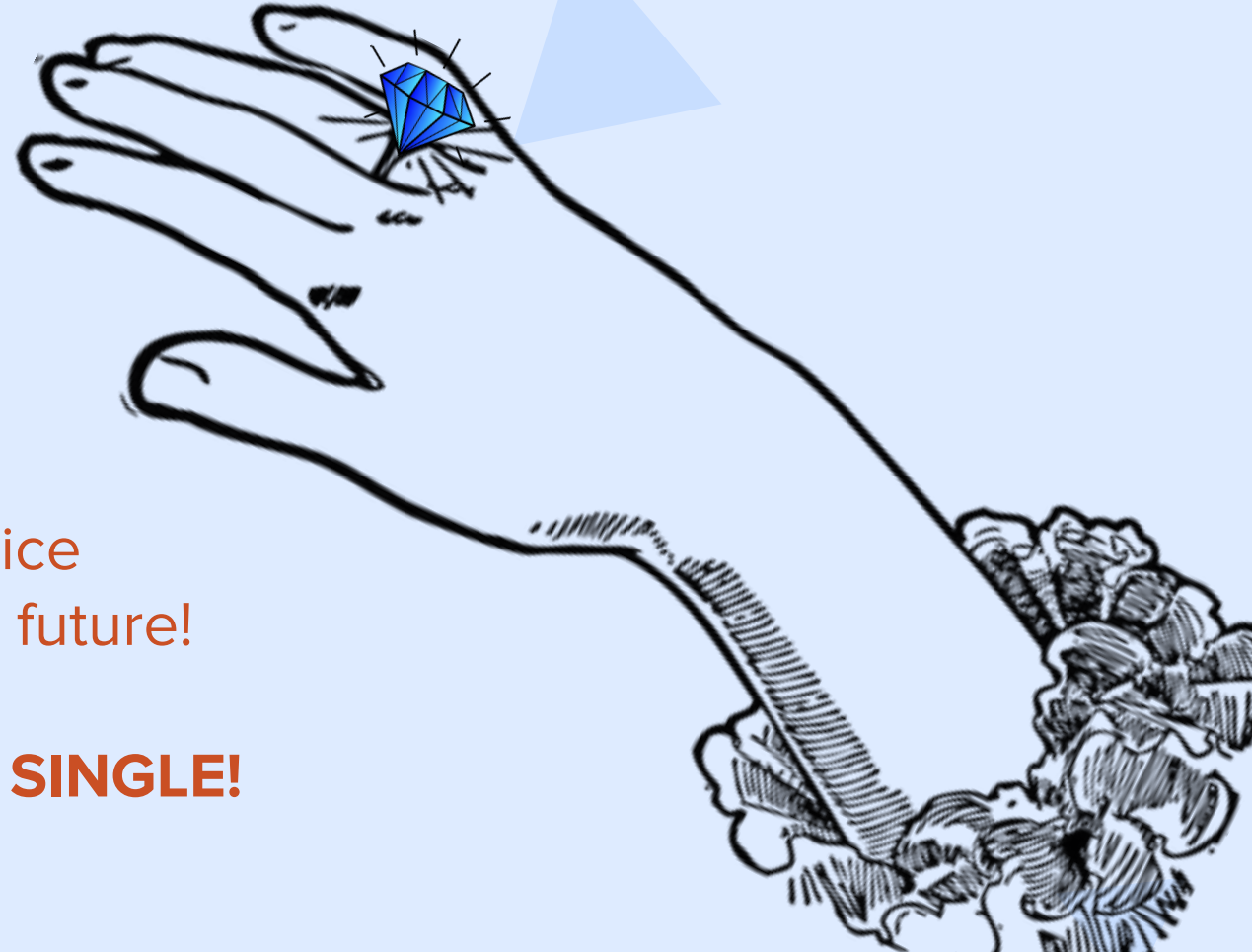
STEP 2:
Budget?
($0/$5000/$10000...)

STEP 3:
Trade-offs:
Carat > Cut > Color > Clarity

STEP 4:
Final Check:
Table & Depth

Vollà !

THANK YOU!



Hope you have a nice engagement in the future!

ONLY IF YOU ARE SINGLE!

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