R Notebook

Code

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```
library(tidyverse)
library(patchwork)
library(ggplot2)
library(dplyr)

glimpse(diamonds)
```

```
Rows: 53,940
Columns: 10
$ carat   <dbl> 0.23, 0.21, 0.23, 0.29, 0.31, 0.24, 0.24, 0.26, 0.22, 0.23, 0.30, …
$ cut     <ord> Ideal, Premium, Good, Premium, Good, Very Good, Very Good, Very Go…
$ color   <ord> E, E, E, I, J, J, I, H, E, H, J, J, F, J, E, E, I, J, J, J, I, E, …
$ clarity <ord> SI2, SI1, VS1, VS2, SI2, VVS2, VVS1, SI1, VS2, VS1, SI1, VS1, SI1,…
$ depth   <dbl> 61.5, 59.8, 56.9, 62.4, 63.3, 62.8, 62.3, 61.9, 65.1, 59.4, 64.0, …
$ table   <dbl> 55, 61, 65, 58, 58, 57, 57, 55, 61, 61, 55, 56, 61, 54, 62, 58, 54…
$ price   <int> 326, 326, 327, 334, 335, 336, 336, 337, 337, 338, 339, 340, 342, 3…
$ x       <dbl> 3.95, 3.89, 4.05, 4.20, 4.34, 3.94, 3.95, 4.07, 3.87, 4.00, 4.25, …
$ y       <dbl> 3.98, 3.84, 4.07, 4.23, 4.35, 3.96, 3.98, 4.11, 3.78, 4.05, 4.28, …
$ z       <dbl> 2.43, 2.31, 2.31, 2.63, 2.75, 2.48, 2.47, 2.53, 2.49, 2.39, 2.73, …
```

Chart 1 relation between carat and price

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```
set.seed(42)
ggplot(sample_n(diamonds, 1000), aes(price, carat))+
geom_point(size = 0.5,col = "#83d0c9")+
geom_smooth(col = "#ff0000")+
theme_minimal()+
labs(title = "Relation between carat and price")
```

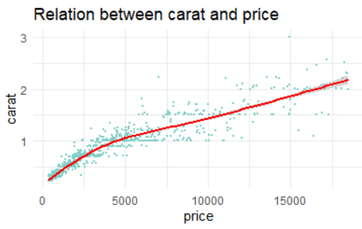

Chart 2 :relation between carat and price each cut

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```
set.seed(42)
ggplot(sample_n(diamonds, 1000),
       aes(carat, price, color = cut)) +
  geom_point(alpha=0.5,col = "#83d0c9") +
  geom_smooth(method="lm",col = "#ff0000") +
  theme_minimal() +
  labs(title = "Relation between price and carat")+
facet_wrap(~ cut, ncol=2)
```

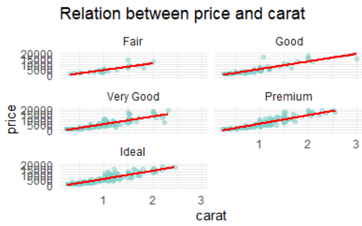

Chart 3 : Price of each diammonds color

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```
set.seed(42)
ggplot(sample_n(diamonds,1000), aes(factor(color), price, fill =color)) +
geom_boxplot() +
labs(title = "Price of each diamonds color") +
scale_fill_brewer(palette = "OrRd") +
theme_minimal()
```

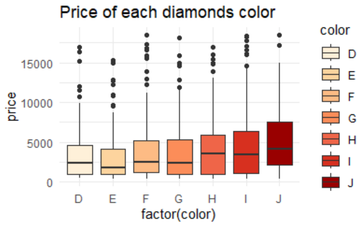

Chart 4 : Diamonds colors of each cut

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```
set.seed(42)
ggplot(sample_n(diamonds,1000), aes(cut,fill=color)) +
geom_bar()+
labs(title = "Diamonds colors of each cut") +
scale_fill_brewer(palette = "OrRd") +
theme_minimal()
```

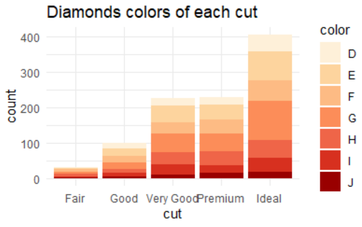

Chart 5 : Amount of diamonds colors

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```
set.seed(42)
ggplot(sample_n(diamonds,1000), aes(color)) +
geom_bar(fill = "#ff0000")+
labs(title = "Count diamonds colors") +
theme_minimal()
```