Bar graphs

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```
library(tidyverse)
```

```
## -- Attaching packages ---------------------------------------------------
------------------------------ tidyverse 1.3.0 --

## v ggplot2 3.3.3     v purrr   0.3.4
## v tibble  3.0.3     v dplyr   1.0.2
## v tidyr   1.1.2     v stringr 1.4.0
## v readr   1.3.1     v forcats 0.5.0

## Warning: package 'ggplot2' was built under R version 4.0.5

## -- Conflicts ------------------------------------------------------------
----------------------- tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

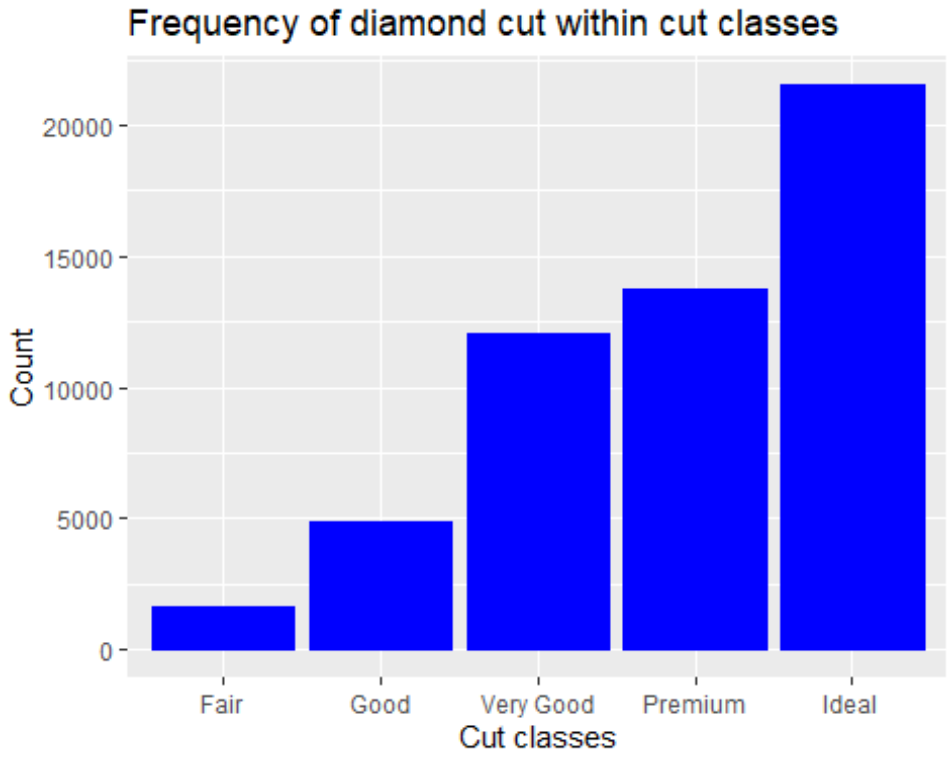
```
# Read the diamonds dataset
data(diamonds)

# Summary statistics of diamonds dataset
summary(diamonds)
```

```
##      carat               cut        color        clarity          depth
##  Min.   :0.2000   Fair      : 1610   D: 6775   SI1    :13065   Min.
:43.00
##  1st Qu.:0.4000   Good      : 4906   E: 9797   VS2    :12258   1st
Qu.:61.00
##  Median :0.7000   Very Good:12082   F: 9542   SI2    : 9194   Median
:61.80
##  Mean   :0.7979   Premium   :13791   G:11292   VS1    : 8171   Mean
:61.75
##  3rd Qu.:1.0400   Ideal     :21551   H: 8304   VVS2   : 5066   3rd
Qu.:62.50
##  Max.   :5.0100                     I: 5422   VVS1   : 3655   Max.
:79.00
##                                     J: 2808   (Other): 2531
##      table           price             x                y
##  Min.   :43.00   Min.   :  326   Min.   : 0.000   Min.   : 0.000
##  1st Qu.:56.00   1st Qu.:  950   1st Qu.: 4.710   1st Qu.: 4.720
##  Median :57.00   Median : 2401   Median : 5.700   Median : 5.710
##  Mean   :57.46   Mean   : 3933   Mean   : 5.731   Mean   : 5.735
##  3rd Qu.:59.00   3rd Qu.: 5324   3rd Qu.: 6.540   3rd Qu.: 6.540
```

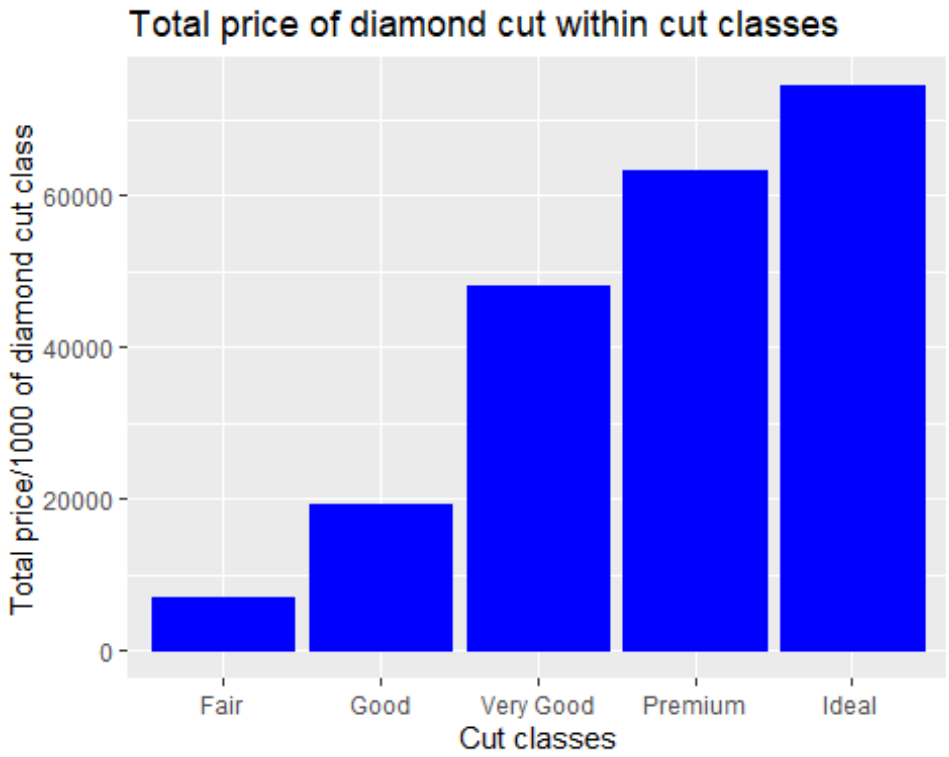
```
##  Max.   :95.00   Max.   :18823   Max.   :10.740   Max.   :58.900
##
##        z
##  Min.   : 0.000
##  1st Qu.: 2.910
##  Median : 3.530
##  Mean   : 3.539
##  3rd Qu.: 4.040
##  Max.   :31.800
##
```

```r
# Frequency of diamond cut within cut classes
# Variables used - x-axis cut
ggplot(diamonds, aes(x=cut)) +
  geom_bar(color="blue", fill="blue") +
  labs (x = "Cut classes",
        y = "Count",
        title = "Frequency of diamond cut within cut classes") +
  theme(legend.position="top")
```

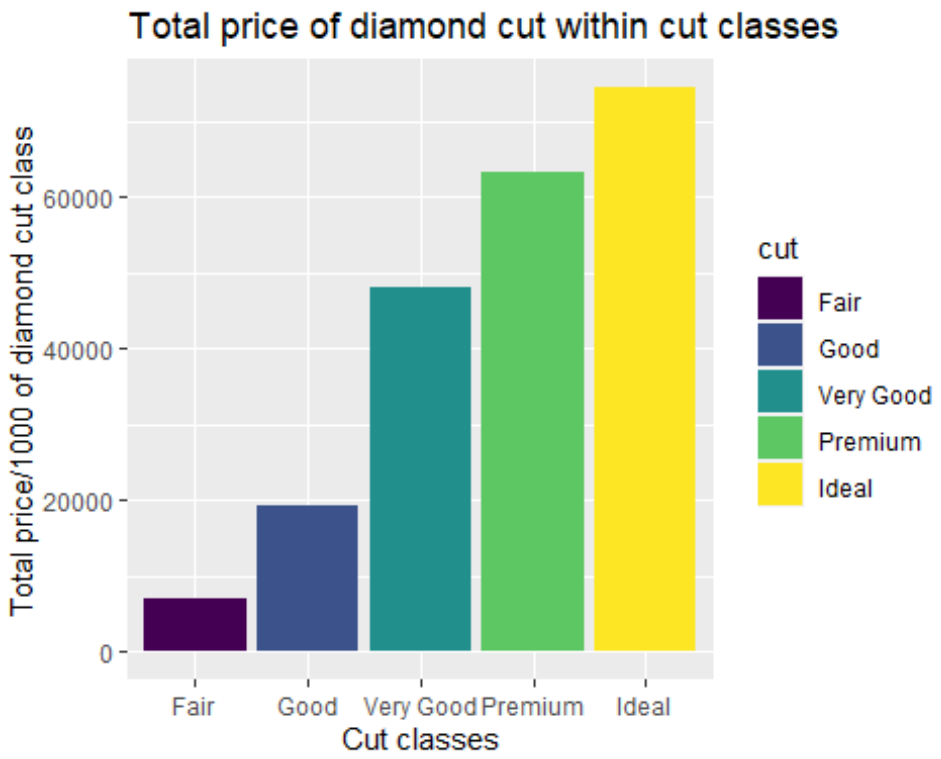



```r
# Total price of diamond cut within cut classes
# Variables used - x-axis cut, y axis price
ggplot(diamonds, aes(x=cut, weight= price/1000)) +
  geom_bar(color="blue", fill="blue") +
  labs (x = "Cut classes",
        y = "Total price/1000 of diamond cut class",
```

```
        title = "Total price of diamond cut within cut classes") +
  theme(legend.position="top")
```

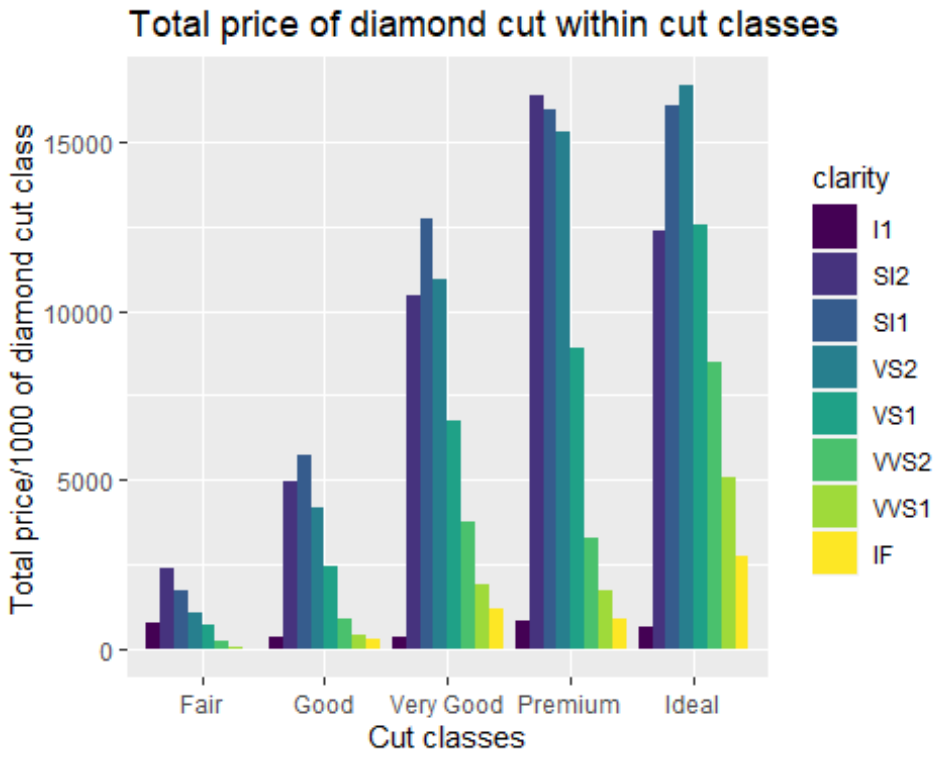



```
# Total price of diamond cut within cut classes
# Variables used - x-axis cut, y axis price, fill color cut
ggplot(diamonds, aes(x=cut, weight= price/1000, fill = cut)) +
  geom_bar() +
  labs (x = "Cut classes",
        y = "Total price/1000 of diamond cut class",
        title = "Total price of diamond cut within cut classes") +
  theme(legend.position="right")
```




```
# Stacked bar graph
ggplot(diamonds, aes(x=cut, weight= price/1000, fill = clarity)) +
  geom_bar() +
  labs (x = "Cut classes",
        y = "Total price/1000 of diamond cut class",
        title = "Total price of diamond cut within cut classes") +
  theme(legend.position="right")
```


```
# dodge bar graph
ggplot(diamonds, aes(x=cut, weight= price/1000, fill = clarity)) +
  geom_bar(position = "dodge") +
  labs (x = "Cut classes",
        y = "Total price/1000 of diamond cut class",
        title = "Total price of diamond cut within cut classes") +
  theme(legend.position="right")
```




```
# Horizontal Stacked bar graph
ggplot(diamonds, aes(y=cut, weight= price/1000, fill = clarity)) +
  geom_bar() +
  labs (y = "Cut classes",
        x = "Total price/1000 of diamond cut class",
        title = "Total price of diamond cut within cut classes") +
  theme(legend.position="right")
```


Total price of diamond cut within cut classes
Ideal
Premium
Very Good
Good
Fair
Cut classes
0
20000
40000
60000
Total price/1000 of diamond cut class
clarity
I1
SI2
SI1
VS2
VS1
VVS2
VVS1
IF