Project: Knowledge Based Recommendation System

Data Visuals

DSC 630

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In [1]:
```
library(wordcloud2)    # Creating the wordcloud
library(wordcloud)
library(RColorBrewer)
library(ggplot2)
library(forcats)
library(repr)
library(ggthemes)
```

```
Warning message:
"package 'wordcloud2' was built under R version 3.6.3"Warning message:
"package 'wordcloud' was built under R version 3.6.3"Loading required package: RColorBre
wer
Warning message:
"package 'ggplot2' was built under R version 3.6.3"Warning message:
"package 'forcats' was built under R version 3.6.3"Warning message:
"package 'repr' was built under R version 3.6.3"Warning message:
"package 'ggthemes' was built under R version 3.6.3"
```

In [2]:
```
df <- read.csv("prod_descR.csv")
```

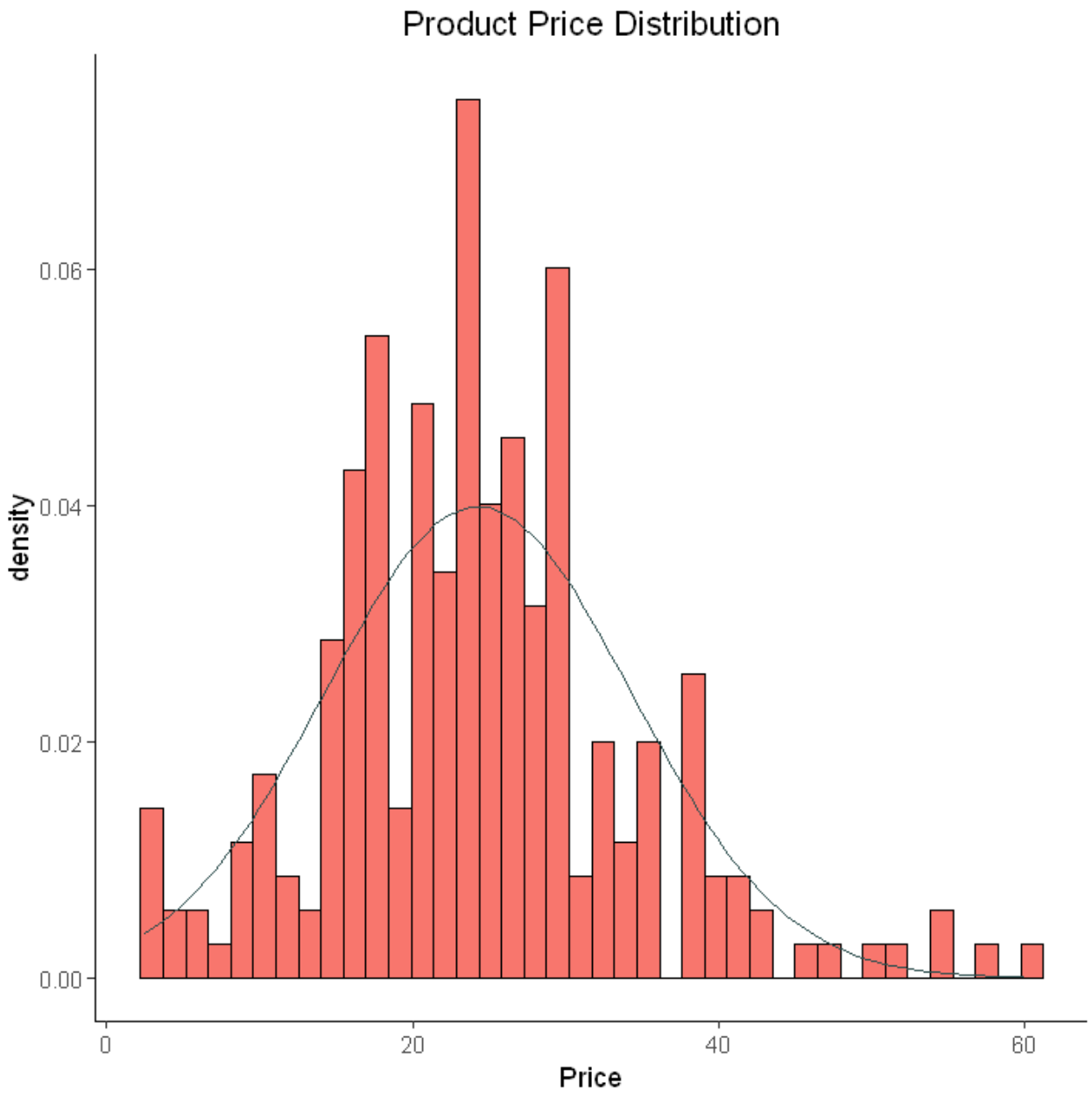
Summary of Price

In [3]:
```
print("Price Summary")
summary(df$price)
```

```
[1] "Price Summary"
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
   2.50   18.00   24.00   24.27   29.00   60.00
```

Price Histogram

In [4]:
```
options(repr.plot.width=6, repr.plot.height=6)
theme_set(theme_classic())
## Histogram Plot of Price
(ggplot(df, aes(x=price)) + geom_histogram(aes(y=..density..), bins=40,color="black", f
ggtitle("Product Price Distribution") +
xlab("Price") +
stat_function(fun = dnorm, args = list(mean = mean(df$price), sd = sd(df$price)), color
theme(panel.background = element_rect(fill = "White"),
      plot.background = element_rect(fill = "White"),
      plot.title = element_text(hjust = 0.5))+
ggsave("histogram_price.png", width = 6, height = 4)
```

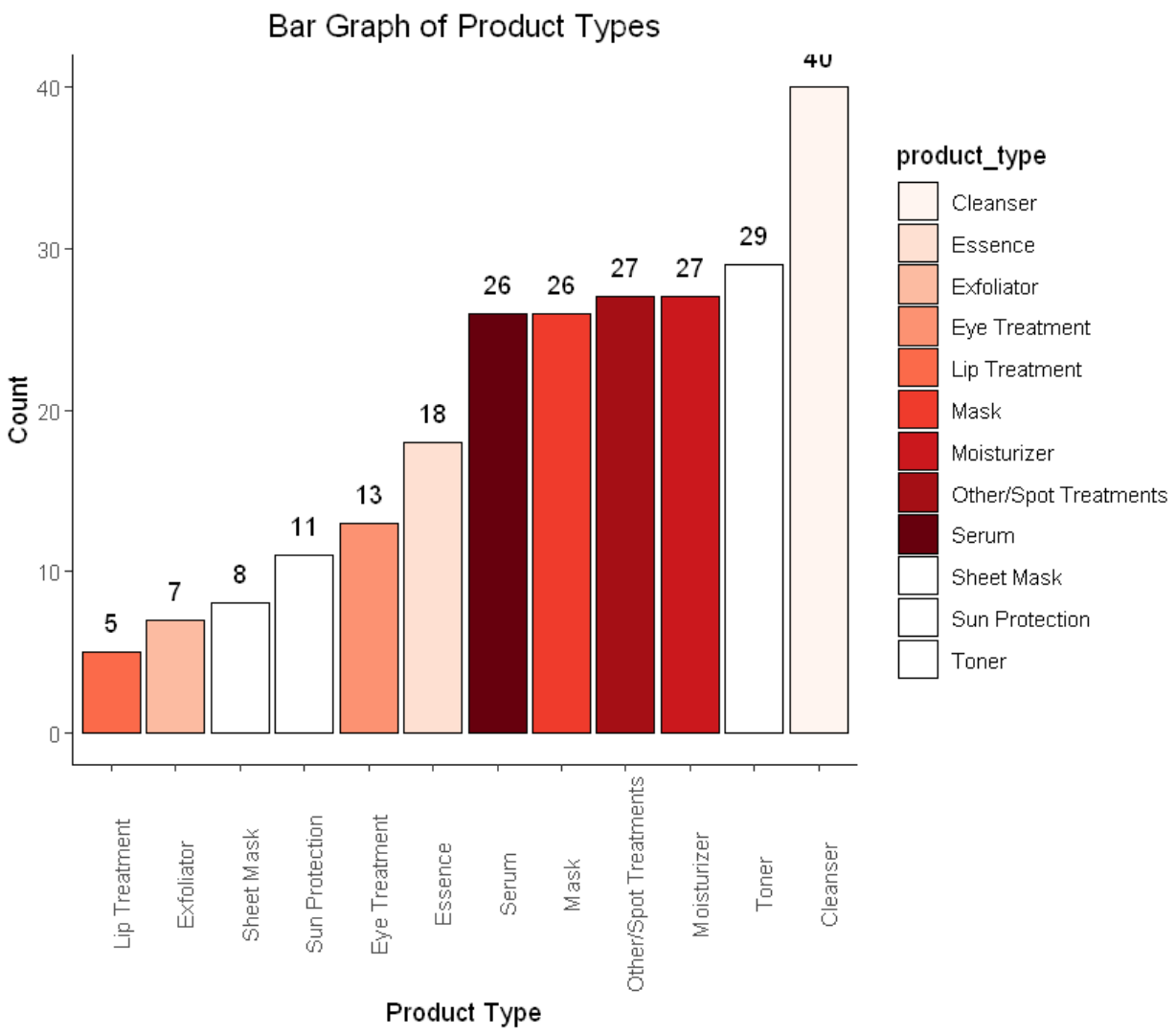


Bar Plot of Product Type

In [5]:
```
options(repr.plot.width=7, repr.plot.height=6)
(ggplot(data=df, aes(x=(fct_rev(forcats::fct_infreq(product_type))), fill=product_type)
geom_bar(color="Black") +
geom_text(stat='count', aes(label=..count..), vjust=-1)+
ggtitle("Bar Graph of Product Types") +
xlab("Product Type") + ylab("Count"))+
theme(axis.text.x = element_text(angle = 90),panel.background = element_rect(fill = "Wh
      plot.background = element_rect(fill = "White"),
      plot.title = element_text(hjust = 0.5))+
scale_fill_brewer(palette="Reds")+
ggsave("Bar_productType.png", width = 6, height = 4)
```

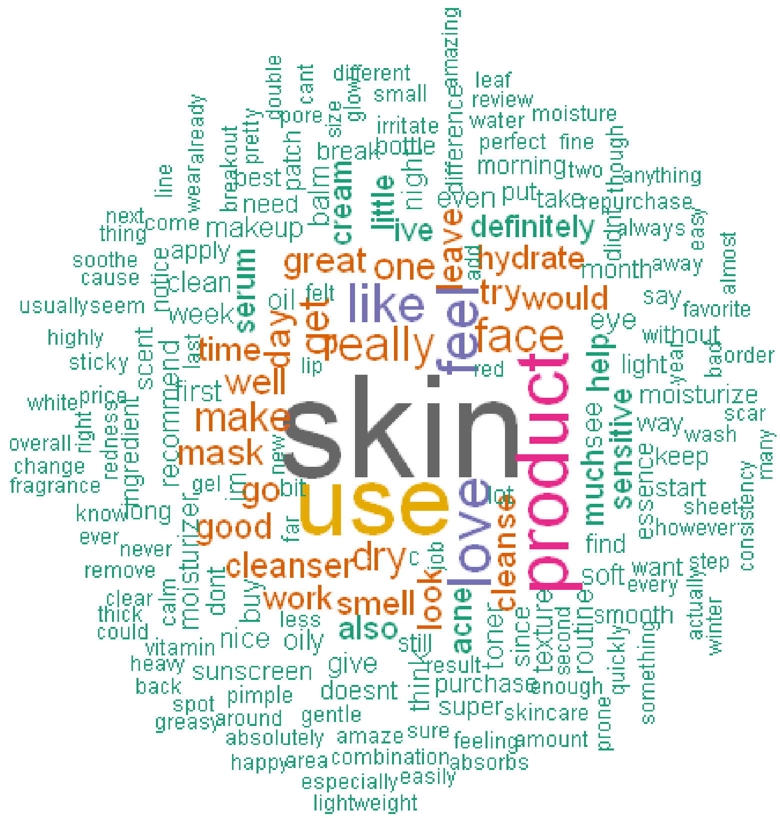
```
Warning message in RColorBrewer::brewer.pal(n, pal):
"n too large, allowed maximum for palette Reds is 9
Returning the palette you asked for with that many colors
"Warning message in RColorBrewer::brewer.pal(n, pal):
"n too large, allowed maximum for palette Reds is 9
```

```
Returning the palette you asked for with that many colors
"
```



In [6]:
```
df2 <- read.csv("common_word.csv")
```

In [7]:
```
set.seed(1234)
options(repr.plot.width=6, repr.plot.height=6)
wordcloud(words = df2$Word, freq = df2$Freq, min.freq = 1,
          max.words=200, random.order=FALSE, rot.per=0.35,
          colors=brewer.pal(8, "Dark2"))
```


skin
use
product
love
feel
like
really
face
make
mask
good
cleanser
dry
get
day
time
well
great
one
leave
hydrate
try
would
go
work
smell
look
cleanse
acne
also
much
see
sensitive
help
serum
cream
little
definitely
ive

In [ ]: