My Document

Packages

```
#install.packages('rmarkdown')
#install.packages('readxl') -- Used for importing xlsx spreadsheets.
#install.packages('tidyverse')
library(rmarkdown)
library(readxl)
library(tidyverse)
```

```
-- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
v dplyr     1.1.4     v readr     2.1.5
v forcats   1.0.0     v stringr   1.5.1
v ggplot2   3.5.2     v tibble    3.2.1
v lubridate 1.9.4     v tidyr     1.3.1
v purrr     1.0.4
-- Conflicts ------------------------------------------ tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()    masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to becor
```

Importing Table

```
traff_violations <- read_excel('AttemptTwo.xlsx')
traff_violations
```

```
# A tibble: 10,000 x 25
   `Date Of Stop`      `Time Of Stop`      Description            Accident Belts
```

```
   <dttm>              <dttm>              <chr>                  <chr>    <chr>
 1 2015-10-20 00:00:00 1899-12-31 15:02:00 EXCEEDING MAXIMUM SPE~ No       No
 2 2013-12-02 00:00:00 1899-12-31 16:23:00 FAILURE TO DISPLAY RE~ No       No
 3 2013-08-20 00:00:00 1899-12-31 22:48:00 EXCEEDING THE POSTED ~ No       No
 4 2017-08-27 00:00:00 1899-12-31 16:39:00 DRIVER FAILURE TO OBE~ No       No
 5 2012-03-25 00:00:00 1899-12-31 13:16:00 DRIVING VEHICLE ON HI~ No       No
 6 2014-04-10 00:00:00 1899-12-31 03:44:00 DRIVING WHILE IMPAIRE~ No       No
 7 2023-11-17 00:00:00 1899-12-31 20:04:00 FAILURE TO ATTACH VEH~ No       No
 8 2018-10-15 00:00:00 1899-12-31 23:47:00 EXCEEDING POSTED MAXI~ No       No
 9 2013-04-17 00:00:00 1899-12-31 17:44:00 DRIVER FAILURE TO OBE~ No       No
10 2019-07-01 00:00:00 1899-12-31 09:08:00 DRIVER USING HANDS TO~ No       No
# i 9,990 more rows
# i 20 more variables: `Personal Injury` <chr>, `Property Damage` <chr>,
#   Fatal <chr>, `Commercial License` <chr>, HAZMAT <chr>,
#   `Commercial Vehicle` <chr>, Alcohol <chr>, `Work Zone` <chr>,
#   `Search Conducted` <chr>, VehicleType <chr>, Year <dbl>, Make <chr>,
#   Model <chr>, Color <chr>, `Contributed To Accident` <lgl>, Race <chr>,
#   Gender <chr>, `Driver City` <chr>, `Driver State` <chr>, ...
```

```r
#Description of Violation
most_common_description <- traff_violations %>%
  count(Description) %>%
  arrange(desc(n)) %>%
  slice(1:5)
print(most_common_description)
```

```
# A tibble: 5 x 2
  Description                                                          n
  <chr>                                                            <int>
1 DRIVER FAILURE TO OBEY PROPERLY PLACED TRAFFIC CONTROL DEVICE INSTRUCTI~   642
2 FAILURE TO DISPLAY REGISTRATION CARD UPON DEMAND BY POLICE OFFICER         356
3 FAILURE OF INDIVIDUAL DRIVING ON HIGHWAY TO DISPLAY LICENSE TO UNIFORME~   353
4 PERSON DRIVING MOTOR VEHICLE ON HIGHWAY OR PUBLIC USE PROPERTY ON SUSPE~   293
5 DRIVING VEHICLE ON HIGHWAY WITH SUSPENDED REGISTRATION                    284
```

```r
#Vehicle Year
most_common_vehicle_year <- traff_violations %>%
  count(Year) %>%
  arrange(desc(n)) %>%
  slice(1:10)
print(most_common_vehicle_year)
```

```
# A tibble: 10 x 2
    Year     n
   <dbl> <int>
 1  2007   537
 2  2006   535
 3  2012   522
 4  2013   515
 5  2008   506
 6  2005   504
 7  2014   481
 8  2010   476
 9  2003   463
10  2004   445
```

```
#Vehicle Make
most_common_vehicle_make <- traff_violations %>%
  count(Make) %>%
  arrange(desc(n))
  #%>% slice(1:5)
print(most_common_vehicle_make)
```

```
# A tibble: 296 x 2
   Make       n
   <chr>  <int>
 1 TOYOTA  1177
 2 HONDA   1084
 3 FORD     989
 4 NISSAN   536
 5 TOYT     485
 6 HOND     336
 7 BMW      326
 8 DODGE    287
 9 CHEV     286
10 CHEVY    246
# i 286 more rows
```

```
#Vehicle Model
most_common_vehicle_model <- traff_violations %>%
  count(Model) %>%
  arrange(desc(n)) %>%
  slice(1:5)
print(most_common_vehicle_model)
```

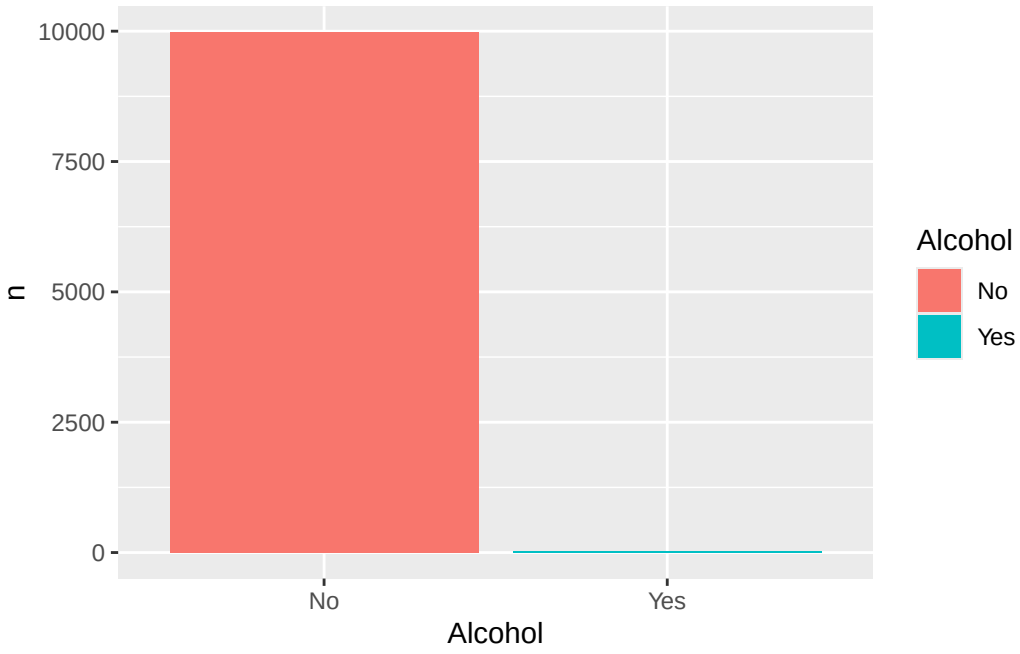
```
# A tibble: 5 x 2
  Model      n
  <chr>  <int>
1 4S       883
2 TK       540
3 CIVIC    357
4 CAMRY    350
5 ACCORD   339
```

```r
#Race of Driver
most_common_race <- traff_violations %>%
  count(Race) %>%
  arrange(desc(n))
  #%>% slice(1:5)
print(most_common_race)
```

```
# A tibble: 6 x 2
  Race                n
  <chr>           <int>
1 WHITE            3240
2 BLACK            3161
3 HISPANIC         2420
4 OTHER             674
5 ASIAN             493
6 NATIVE AMERICAN    12
```

```r
alcohol <- traff_violations %>% count(Alcohol)

ggplot(alcohol, aes(Alcohol, n, fill = Alcohol))+ geom_bar(stat = "identity")
```


10000
7500
5000
2500
0
n
No
Yes
Alcohol
Alcohol
No
Yes