Mini essay 2

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```
#### Work space setup ####
#| echo: false
#| warning: false
#install.packages("tidyverse")
#install.packages("janitor")
#install.packages("opendatatoronto")

library("janitor")
```

```
Attaching package: 'janitor'

The following objects are masked from 'package:stats':

    chisq.test, fisher.test
```

```
library("knitr")
library("lubridate")
```

```
Attaching package: 'lubridate'

The following objects are masked from 'package:base':

    date, intersect, setdiff, union
```

```r
library("opendatatoronto")
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 3.4.4     v tibble  3.2.1
v purrr   1.0.2     v tidyr   1.3.0

-- 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
```

Getting the Data

```r
#### Reading the Data ####
pkg <-
  search_packages('Real Estate Asset Inventory', limit = 50)

pkgs <-
  list_package_resources(pkg$id)

data <-
  get_resource(pkgs[3:3,1:2]$id)

write_csv(
  x = data,
  file = "toronto_real_esate_asset_inventory.csv"
)
```

Cleaning the Data

```r
### Cleaning the Data
raw_toronto_real_esate_asset_inventory <-
  read_csv(
    file = "toronto_real_esate_asset_inventory.csv",
    show_col_types = FALSE
```

```
  )
cleaned_toronto_real_esate_asset_inventory <-
  clean_names(raw_toronto_real_esate_asset_inventory)

cleaned_toronto_real_esate_asset_inventory <-
  cleaned_toronto_real_esate_asset_inventory |>
  select(
    owner
  )
cleaned_toronto_real_esate_asset_inventory |>
  count(owner)
```

```
# A tibble: 18 x 2
   owner                                      n
   <chr>                                  <int>
 1 City of Toronto                         2168
 2 Exhibition Place Board                     1
 3 Housing Co-Operatives                      3
 4 METROLINX                                  1
 5 Multiple                                   1
 6 Province of Ontario                       26
 7 RRVP MARKINGTON INC                        1
 8 TDSB                                       1
 9 TEDCO                                     10
10 THIRD PARTY                               43
11 Third Party Organization                 121
12 Toronto & Region Conservation Authority    7
13 Toronto Catholic District School Board     2
14 Toronto Community Housing Corporation     33
15 Toronto District School Board             59
16 Toronto Hydro Corporation                  2
17 Toronto Public Library Board              58
18 Toronto Transit Commission                27
```

```
write_csv(
  x = cleaned_toronto_real_esate_asset_inventory,
  file = "cleaned_toronto_real_esate_asset_inventory.csv"
)
```

Creating Graph

```
cleaned_toronto_real_esate_asset_inventory <-
  read_csv(
    file = "cleaned_toronto_real_esate_asset_inventory.csv",
    show_col_types = FALSE
  )

cleaned_toronto_real_esate_asset_inventory |>
  ggplot(aes(x = owner)) +
  geom_bar() +
  theme_minimal() + # Make the theme neater
  labs(x = "Asset Owner", y = "Number of Assets", title = 'Toronto Real Estate Assets by O
  theme(axis.text.x = element_text(angle = 90, hjust = 1))
```