Tut_2_Code

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Preamble

Purpose: determines the number of reports based on the category of crime.

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Workspace setup

load packages

```
library(janitor)
library(tidyverse)
library(dplyr)
library(opendatatoronto)
```

get package

```
package <- show_package("police-annual-statistical-report-reported-crimes")
```

get all resources for this package

```
resources <- list_package_resources("police-annual-statistical-report-reported-crimes")
```

identify datastore resources; by default, Toronto Open Data sets datastore resource format to CSV for non-geospatial and GeoJSON for geospatial resources

```
datastore_resources <- filter(resources, tolower(format) %in% c('csv', 'geojson'))
```

load the first datastore resource as a sample

```
data <- filter(datastore_resources, row_number()==1) %>% get_resource()
head(data)
```

```
# A tibble: 6 × 7
  `_id` REPORT_YEAR DIVISION CATEGORY               SUBTYPE COUNT_ COUNT_CLEARED
  <int>       <int> <chr>    <chr>                  <chr>   <chr>  <chr>
1     1        2014 D11      Crimes Against the Pe… Other   22     9
2     2        2014 D11      Crimes Against Proper… Theft … 1      1
3     3        2014 D11      Crimes Against the Pe… Other   1      1
4     4        2014 D11      Crimes Against the Pe… Robber… 1      1
5     5        2014 D11      Crimes Against Proper… Break … 23     13
6     6        2014 D11      Crimes Against Proper… Theft … 1      1
```

Cleaning and tidying data

Clean column names

```
cleaned <-
  clean_names(data)
```

Select necessary columns

```
cleaned <-
  cleaned |>
  select(
    id,
    category
  )

head(cleaned)
```

```
# A tibble: 6 × 2
     id category
  <int> <chr>
1     1 Crimes Against the Person
2     2 Crimes Against Property
3     3 Crimes Against the Person
4     4 Crimes Against the Person
5     5 Crimes Against Property
6     6 Crimes Against Property
```

Save cleaned data as csv file

```
write_csv(x=cleaned, file="reported_crimes_reports.csv")
```

Plot

Create bar graph to find the number of reported crimes for each category in 2014

```
cleaned |>
  ggplot(aes(x = category)) +
  geom_bar() +
  theme_minimal() +
  theme(axis.text.x = element_text(angle = 25, hjust = 1)) +  # Rotate x-axis labels
  labs(title = "Number of Reported Crimes in 2014 by Crime Category", x = "Categories", y = "Numb
```