

# Homework 5- Due 11/30/2022

Lexi Keene

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```
list.files("../data/")

## [1] "homicide-data.csv"

homicide_data <- read_csv("../data/homicide-data.csv")
head(homicide_data)

## # A tibble: 6 x 12
##   uid      repor~1 victi~2 victi~3 victi~4 victi~5 victi~6 city  state  lat  lon
##   <chr>      <dbl> <chr>   <chr>   <chr>   <chr>   <chr>   <chr> <chr> <dbl> <dbl>
## 1 Alb-0~  2.01e7 GARCIA  JUAN    Hispan~ 78      Male    Albu~  NM    35.1 -107.
## 2 Alb-0~  2.01e7 MONTOYA CAMERON Hispan~ 17      Male    Albu~  NM    35.1 -107.
## 3 Alb-0~  2.01e7 SATTER~ VIVIANA White   15      Female  Albu~  NM    35.1 -107.
## 4 Alb-0~  2.01e7 MENDIO~ CARLOS  Hispan~ 32      Male    Albu~  NM    35.1 -107.
## 5 Alb-0~  2.01e7 MULA    VIVIAN  White   72      Female  Albu~  NM    35.1 -107.
## 6 Alb-0~  2.01e7 BOOK    GERALD~ White   91      Female  Albu~  NM    35.2 -107.
## # ... with 1 more variable: disposition <chr>, and abbreviated variable names
## #   1: reported_date, 2: victim_last, 3: victim_first, 4: victim_race,
## #   5: victim_age, 6: victim_sex

baltimore_data <- homicide_data %>%
  filter(city == "Baltimore") %>%
  mutate(reported_date = ymd(reported_date),
         year = year(reported_date),
         month = month(reported_date),
         day = day(reported_date)) %>%
  mutate(solved = disposition == "Closed by arrest",
         solved = as.factor(solved),
         solved = recode(solved, "FALSE" = "Unsolved", "TRUE" = "Solved"),
         victim_race = as.factor(victim_race),
         victim_race = fct_lump(victim_race, n = 3))

baltimore_tracts <- tracts("MD", "Baltimore city")

## |

baltimore_sf <- st_as_sf(baltimore_data, coords = c("lon", "lat")) %>%
  st_set_crs(4269)

ggplot() +
  geom_sf(data = baltimore_tracts) +
  geom_sf(data = baltimore_sf, aes(color = victim_race), alpha = 0.6) +
  facet_grid(. ~ solved) +
  theme_tufte() +
  labs(color = "Victim Race")
```

