Hw5

Sunny

11/11/2019

```
library(readr)
library(dplyr)
library(tidyr)
library(forcats)
library(lubridate)
library(ggplot2)
library(scales)
library(sf)
library(tigris)
library(knitr)

# Load data
homicides <- read.csv('../Data/homicide-data.csv')
head(homicides)
```

```
##          uid reported_date victim_last victim_first victim_race victim_age
## 1 Alb-000001      20100504      GARCIA         JUAN    Hispanic         78
## 2 Alb-000002      20100216     MONTOYA      CAMERON    Hispanic         17
## 3 Alb-000003      20100601 SATTERFIELD      VIVIANA       White         15
## 4 Alb-000004      20100101    MENDIOLA       CARLOS    Hispanic         32
## 5 Alb-000005      20100102        MULA       VIVIAN       White         72
## 6 Alb-000006      20100126        BOOK    GERALDINE       White         91
##   victim_sex        city state      lat       lon           disposition
## 1       Male Albuquerque    NM 35.09579 -106.5386 Closed without arrest
## 2       Male Albuquerque    NM 35.05681 -106.7153      Closed by arrest
## 3     Female Albuquerque    NM 35.08609 -106.6956 Closed without arrest
## 4       Male Albuquerque    NM 35.07849 -106.5561      Closed by arrest
## 5     Female Albuquerque    NM 35.13036 -106.5810 Closed without arrest
## 6     Female Albuquerque    NM 35.15111 -106.5378        Open/No arrest
```

```
denver <- homicides %>%
  filter(city == "Denver") %>%
  mutate(disposition=recode(disposition,
                            "Closed without arrest" = "unsolved",
                            "Open/No arrest" = 'unsolved',
                            "Closed by arrest" = "solved"))

denver_map <- blocks(state= "CO", county = "Denver County",
                     class = "sf")

denver_homicides <- st_as_sf(denver, coords = c("lon", "lat")) %>%
  st_set_crs(4269) %>%
  mutate(victim_race = fct_lump(victim_race, n=3))
```

```r
ggplot()+
  geom_sf(data=denver_map, color = "blue")+
  geom_sf(data=denver_homicides, aes(color=victim_race))+
  facet_wrap(~disposition, ncol=1)+
  ggtitle("Murder locations in Denver")+
  theme_bw()+
theme(plot.title = element_text(hjust = 0.3))+
  labs(y= "Latitude", x= "Longitude", color= "Victim Race")+
  theme(panel.spacing = unit(.5, units = "in"))+
  theme(axis.text.x = element_text(angle=90))
```