Homework\_5

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## Load libraries

library(tidyverse)

## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --

## v ggplot2 3.3.5 v purrr 0.3.4  
## v tibble 3.1.5 v dplyr 1.0.7  
## v tidyr 1.1.4 v stringr 1.4.0  
## v readr 2.0.2 v forcats 0.5.1

## -- Conflicts ------------------------------------------ tidyverse\_conflicts() --  
## x dplyr::filter() masks stats::filter()  
## x dplyr::lag() masks stats::lag()

library(viridis)

## Loading required package: viridisLite

## Warning: package 'viridisLite' was built under R version 4.1.2

library(tigris)

## To enable   
## caching of data, set `options(tigris\_use\_cache = TRUE)` in your R script or .Rprofile.

library(sf)

## Linking to GEOS 3.9.1, GDAL 3.2.1, PROJ 7.2.1

library(ggplot2)

##Load data

homicide <- read.csv("homicide-data.csv")

##Chicago homicides

chic\_homicide <- homicide %>%  
 filter(city == "Chicago")

##Identify longitude and latitude of Chicago homicides

chic\_homs <- st\_as\_sf(chic\_homicide, coords = c("lon", "lat")) %>%  
 st\_set\_crs(4269)

##Create map of Chicago using SF function

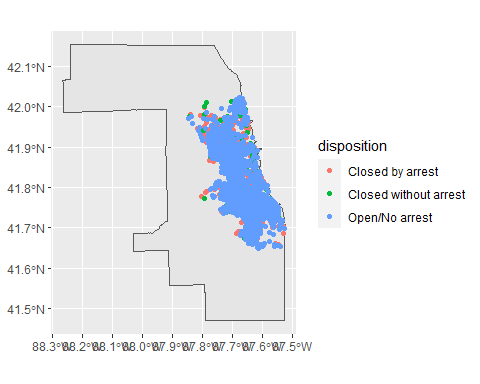
chic\_map <- counties(state = "IL", cb = TRUE, class = "sf")

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chic\_map <- chic\_map %>%  
 filter(COUNTYFP == "031")

##Create plot

ggplot() +  
 geom\_sf(data = chic\_map) +  
 geom\_sf(data = chic\_homs, aes(color = disposition))

 ##Load forcats

library(forcats)

#Map of 3 race groups with highest homicides

chic\_homs %>%  
 mutate(victim\_race = fct\_lump(victim\_race, n = 3)) %>%  
 ggplot +  
 geom\_sf(data = chic\_map) +  
 geom\_sf(aes(color = victim\_race))

