

HW 8 group

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```
library(magrittr); library(RSQLite); library(ggplot2)

config <- yaml::read_yaml("../config.yaml")

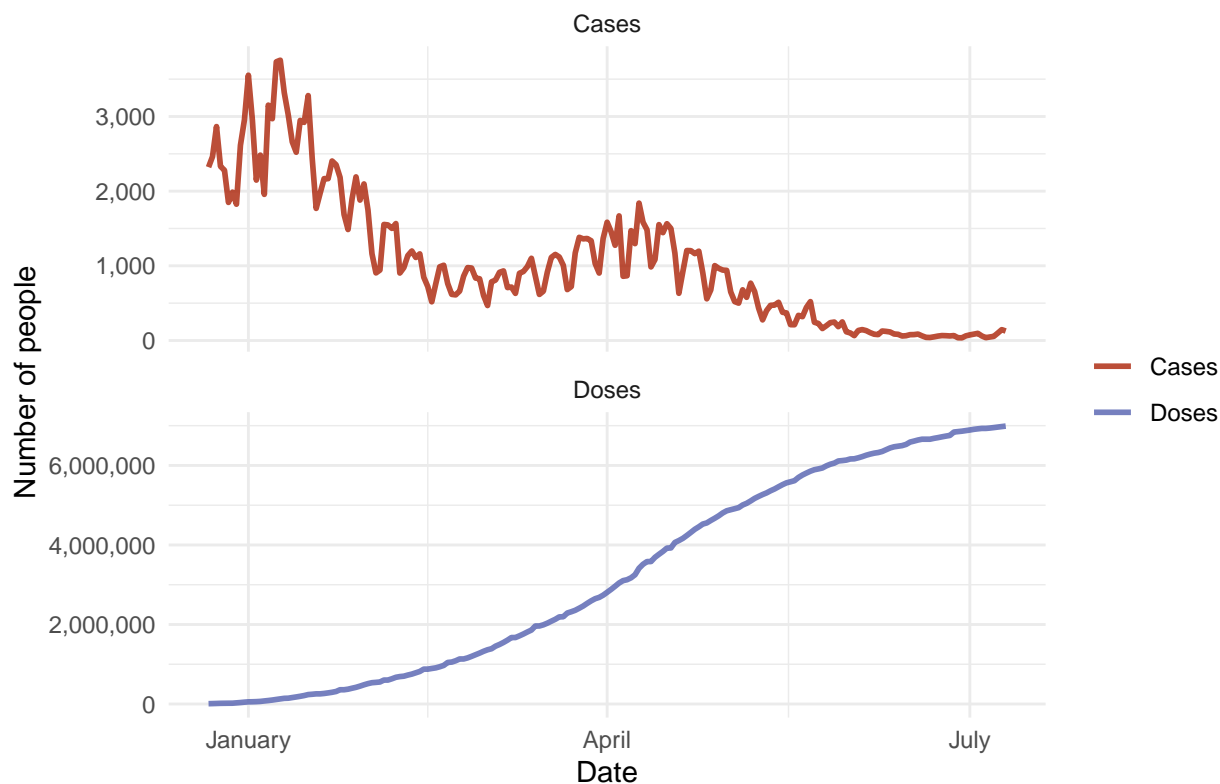
covid <- readr::read_csv(paste0("../", config$paths$raw, config$data$nyt_covid))
vaccination <- readr::read_csv(paste0("../", config$paths$us_ts, config$data$vax_data_ts))
```

Problem 1

```
df <- covid %>%
  dplyr::filter(state == "Maryland") %>%
  dplyr::group_by(date) %>%
  dplyr::summarize(cases = sum(cases, na.rm = T)) %>%
  dplyr::ungroup() %>%
  dplyr::mutate(date = as.Date(date)) %>%
  dplyr::select(date, Cases = cases) %>%
  dplyr::inner_join(vaccination %>%
                    dplyr::filter(Province_State == "Maryland",
                                   Vaccine_Type == "All") %>%
                    dplyr::select(date = Date, Doses = Doses_admin) %>%
                    dplyr::mutate(date = as.Date(date)),
                    by = "date") %>%
  dplyr::mutate(dplyr::across(c(Cases), ~. - dplyr::lag(.))) %>%
  tidyr::drop_na() %>%
  tidyr::pivot_longer(cols = c(Cases, Doses))

ggplot(df, aes(x = date, y = value, color = name)) +
  geom_line(size = 1, alpha = 0.8) +
  theme_minimal() +
  facet_wrap(~ name, scales = "free_y", ncol = 1) +
  labs(x = "Date",
       y = "Number of people",
       title = "<span style='color:#ab2207'>New cases</span> and <span style='color:#5461b0'>cumu.
  theme(plot.title = ggtext::element_markdown(),
        legend.title = element_blank()) +
  scale_color_manual(values = c("Cases" = "#ab2207", "Doses" = "#5461b0")) +
  scale_y_continuous(labels = scales::comma) +
  scale_x_date(date_labels = "%B")
```

New cases and cumulative vaccine doses in Maryland



Problem 2

```
lu_fips <- tidycensus::fips_codes %>%
  dplyr::mutate(county_name = stringr::str_replace_all(county, " County", ""))
```

```
head(lu_fips)
```

```
##   state state_code state_name county_code      county county_name
## 1    AL          01   Alabama      001 Autauga County   Autauga
## 2    AL          01   Alabama      003 Baldwin County Baldwin
## 3    AL          01   Alabama      005 Barbour County  Barbour
## 4    AL          01   Alabama      007  Bibb County    Bibb
## 5    AL          01   Alabama      009 Blount County   Blount
## 6    AL          01   Alabama      011 Bullock County  Bullock
```

```
paste("The longest county name is", max(stringr::str_length(lu_fips$county)), "characters, including the word 'County.'")
```

```
## [1] "The longest county name is 33 characters, including the word 'County.' We will have to account for the word 'County' in the county name."
```