Day 1 Challenge - Point - A map with points

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A map with points

Data source: https://www.geeksforgeeks.org/how-to-make-world-map-with-ggplot2-in-r/

```
library(tidyverse)
```

```
## -- Attaching core tidyverse packages ------------------------ tidyverse 2.0.0 --
## v dplyr     1.1.3     v readr     2.1.4
## v forcats   1.0.0     v stringr   1.5.0
## v ggplot2   3.4.1     v tibble    3.2.1
## v lubridate 1.9.2     v tidyr     1.3.0
## v purrr     1.0.1
## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
## i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become errors
```

```
# create data for world coordinates using map_data() function
world_coordinates <- map_data("world")

# read volcano_eruption data from volcano.csv
volcano_eruption <- readr::read_csv(here("Day1-Points", "volcano.csv") )
```

```
## Rows: 958 Columns: 26
## -- Column specification --------------------------------------------------------
## Delimiter: ","
## chr (17): volcano_name, primary_volcano_type, last_eruption_year, country, r...
## dbl  (8): volcano_number, latitude, longitude, elevation, population_within_...
## lgl  (1): minor_rock_5
##
## i Use `spec()` to retrieve the full column specification for this data.
## i Specify the column types or set `show_col_types = FALSE` to quiet this message.
```

```
volcano_eruption_new<- volcano_eruption |>
  mutate(last_eruption_year_new = as.numeric(ifelse(last_eruption_year<=0, 0, last_eruption_year)))
```

```
## Warning: There was 1 warning in `mutate()`.
## i In argument: `last_eruption_year_new = as.numeric(ifelse(last_eruption_year
##   <= 0, 0, last_eruption_year))`.
## Caused by warning:
## ! NAs introduced by coercion
```

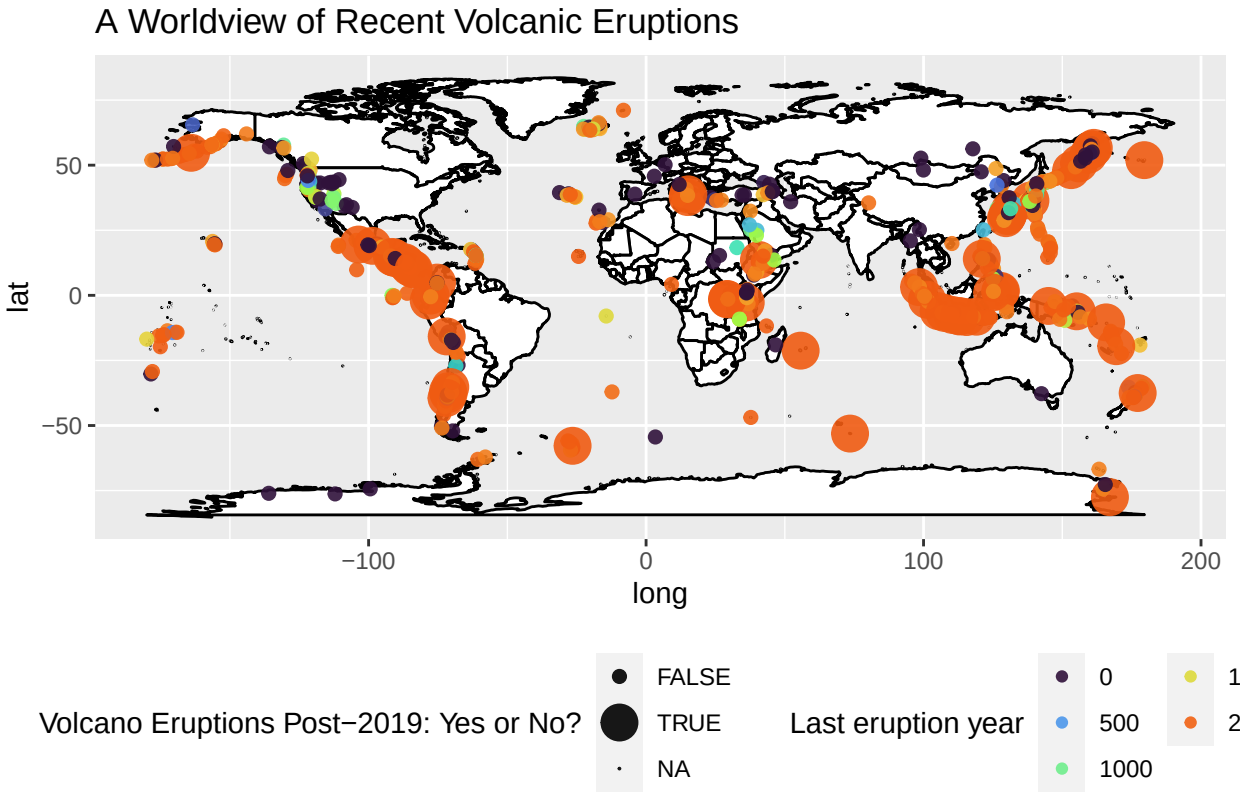
```
p <- ggplot() +
  geom_map(
    data = world_coordinates, map = world_coordinates,
    aes(long, lat, map_id = region),
    color = "black", fill= "white"
  )+
geom_point(
    data = volcano_eruption_new,
    aes(longitude, latitude, color = last_eruption_year_new,
        size = last_eruption_year_new>=2019),
    alpha = 0.9
  ) +
theme(legend.position="bottom") +
  scale_color_viridis_c( end = 0.8, option = "H") +
  guides(color=guide_legend(title="Last eruption year",  nrow = 3),
         size = guide_legend("Volcano Eruptions Post-2019: Yes or No?", nrow = 3))+
  labs(title = "A Worldview of Recent Volcanic Eruptions",
       caption  = "Data Source: https://www.geeksforgeeks.org/how-to-make-world-map-with-ggplot2-in-r/")
```

```
## Warning in geom_map(data = world_coordinates, map = world_coordinates,
## aes(long, : Ignoring unknown aesthetics: x and y
```

```
p
```

```
## Warning: Using size for a discrete variable is not advised.
```

```
## Warning: Removed 301 rows containing missing values (`geom_point()`).
```



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