Demo

STAT 231: Calendar Query

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Introduction

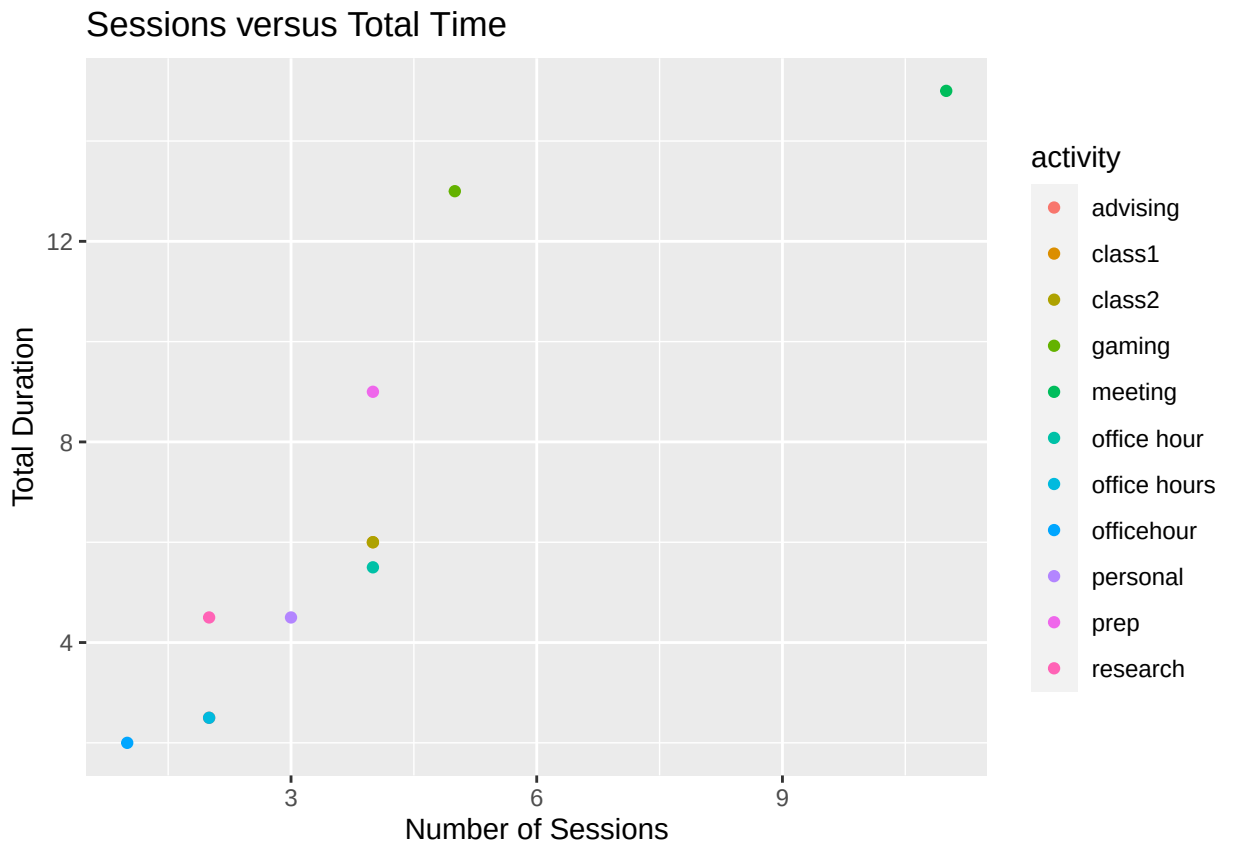
Data collection

```
# Data import and preliminary wrangling
calendar_data <- "WagamanCalendarQuery.ics" %>%
  ## Use ical package to import into R
  ical_parse_df() %>%
  ## Convert to "tibble" data frame format
  as_tibble() %>%
  ## calendar event descriptions are in a variable called "summary"
  ## "activity" is a more relevant/informative variable name
  rename(activity = summary) %>%
  mutate(
    ## Specify time zone (defaults to UTC otherwise)
    start_datetime = with_tz(start, tzone = "America/New_York"),
    end_datetime = with_tz(end, tzone = "America/New_York"),
    ## Compute duration of each activity in hours
    duration = interval(start_datetime, end_datetime) / hours(1),
    ## Convert text to lower case and trim spaces to help clean up
    ## potential inconsistencies in formatting
    activity = str_to_lower(activity),
    ## separate date from time
    date = floor_date(start_datetime, unit = "day"),
    ## Examples of ways to parse dates, times
    year = year(date),
    month = month(date, label = FALSE),
    day = day(date),
    day_of_week = wday(date, label = TRUE),
    day_of_year = yday(date)) %>%
  ## remove spurious year (added to every Google calendar)
  filter(year != 1969)
```

```
# Compute total duration for each activity and number of each
activities_total <- calendar_data %>%
  group_by(activity) %>%
  summarize(duration = sum(duration),
            count = n())
```

Results

```
ggplot(activities_total, mapping = aes(x = count, y = duration, color = activity))+
  geom_point()+
  labs(x = "Number of Sessions",
       y = "Total Duration",
       title = "Sessions versus Total Time")
```




```
# Code for second data visualization
# Be sure to provide meaningful title and axes labels and
# resize figure appropriately
# Only code for your second visualization should be here (no or very minimal wrangling code)
# Remove all these comments!
```

```
# Code for table
# Only code for your table should be here (no or very minimal wrangling code)
```

Conclusions

Reflection