# Lab 2 - Creating One- and Two-Dimensional Visualizations with a Given Dataset

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In this lab, you are going to explore an educational dataset by making several one- and two-dimensional visualizations.

## Libraries

Load the necessary libraries.

```
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   3.4.3     v tibble    3.2.1
## v lubridate 1.9.3     v tidyr     1.3.0
## v purrr     1.0.2
## -- 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
```

## Data

Load the data.

```
df_edu <- read_csv("../data/xAPI-Edu-Data.csv")
```

```
## Rows: 480 Columns: 13
## -- Column specification --------------------------------------------------------
## Delimiter: ","
## chr (9): gender, GradeID, Topic, Semester, Relation, ParentAnsweringSurvey, ...
## dbl (4): raisedhands, VisitedResources, AnnouncementsView, Discussion
##
## 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.
```

## 1D plots

Make one-dimensional plots to visualize the dataset by topic, gender, parent's school satisfaction and visited resources.

You may choose between bar plots and histograms.

Fill the cell with the code to make the plots.

## 2D plots

Make two-dimensional plots to visualize the relationship between:

- number of visited resources by topic,
- number of announcement views and number of visited resources,
- discussion participation by gender

You may choose between box plots or scatter plots.

Fill the cell with the code to make the plots.