

# Project 2 – your title here

MTH 161 – Fall 2024

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```
library(tidyverse)
```

```
-- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
```

```
v dplyr      1.1.4      v readr      2.1.5
```

```
v forcats    1.0.0      v stringr    1.5.1
```

```
v ggplot2    3.5.1      v tibble     3.2.1
```

```
v lubridate  1.9.3      v tidyr      1.3.1
```

```
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
```

```
library(openintro)
```

```
Loading required package: airports
```

```
Loading required package: cherryblossom
```

```
Loading required package: usdata
```

## Part 1: choose a dataset and propose a question

### Due Nov. 15th

The first step is to think about and choose a potential question or topic that you're interested in and then find a dataset that will help you investigate your question.

The dataset you choose should

- Have at least 100 observations
- Have at least 5 columns (variables)

You must credit a source for your data and provide a link to the source.

After you identify a dataset to examine, provide enough background on the dataset for your reader to understand the context for your research question. This might include a snippet of data (using your favorite code), a codebook explaining what the variables are, and/or a calculation that has pointed you to a question about the data that you find compelling: whatever you feel is needed to help frame your research question. Finally, make sure your research question is articulated precisely with clear reference to the variable(s) or parameter(s) of interest. Past AEs, labs, and the first project all contain examples of carefully stated research questions.

#### Note

The instructions above are included here for your convenience, but they should not appear in your final report.

For my final project, I decided to do a report on cars. I love cars and everything about them and I want to learn more about them. I drive a BMW X3 the latest model and it made me fall in love with cars. I got the data from the link you gave us under the CORGIS: The Collection of Really Great, Interesting, Situated Datasets.

Here is the data;

```
cars <- read.csv ("cars.csv")
```

```
glimpse (cars)
```

```
Rows: 5,076
Columns: 18
$ Dimensions.Height      <int> 140, 140, 140, 140, 14~
$ Dimensions.Length      <int> 143, 143, 143, 143, 14~
$ Dimensions.Width       <int> 202, 202, 202, 202, 20~
$ Engine.Information.Driveline <chr> "All-wheel drive", "Fr~
$ Engine.Information.Engine.Type <chr> "Audi 3.2L 6 cylinder ~
$ Engine.Information.Hybrid <chr> "True", "True", "True"~
$ Engine.Information.Number.of.Forward.Gears <int> 6, 6, 6, 6, 6, 6, 6, 6~
$ Engine.Information.Transmission <chr> "6 Speed Automatic Sel~
$ Fuel.Information.City.mpg <int> 18, 22, 21, 21, 21, 16~
$ Fuel.Information.Fuel.Type <chr> "Gasoline", "Gasoline"~
$ Fuel.Information.Highway.mpg <int> 25, 28, 30, 28, 28, 27~
```

```

$ Identification.Classification      <chr> "Automatic transmissio~
$ Identification.ID                  <chr> "2009 Audi A3 3.2", "2~
$ Identification.Make                 <chr> "Audi", "Audi", "Audi"~
$ Identification.Model.Year           <chr> "2009 Audi A3", "2009 ~
$ Identification.Year                 <int> 2009, 2009, 2009, 2009~
$ Engine.Information.Engine.Statistics.Horsepower <int> 250, 200, 200, 200, 20~
$ Engine.Information.Engine.Statistics.Torque    <int> 236, 207, 207, 207, 20~

```