

# R Programming I

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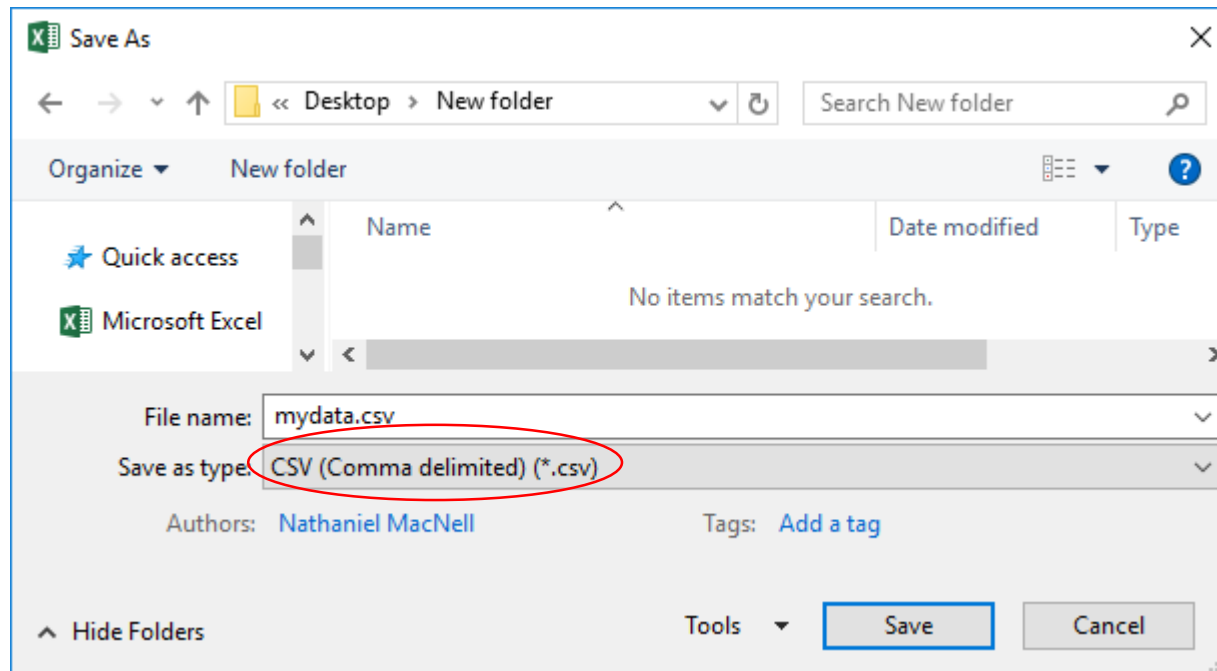
# Overview

- Slides: What is a Data Frame?
  - How do I inspect it?
- Activity: Inspect Births data frame
  - [Dictionary](#)

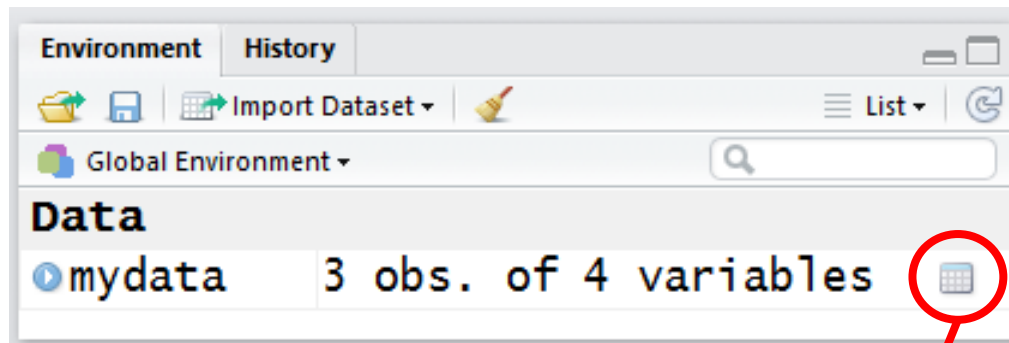
# Importing Data

- 1. Get a spreadsheet
- 2. Save as .csv
- Import using read.csv()

	A	B	C	D
1	id	bp	rx	dx
2	A1	120	1	1
3	A2	130	0	1
4	B1	125	0	0
5				



# Confirming Import

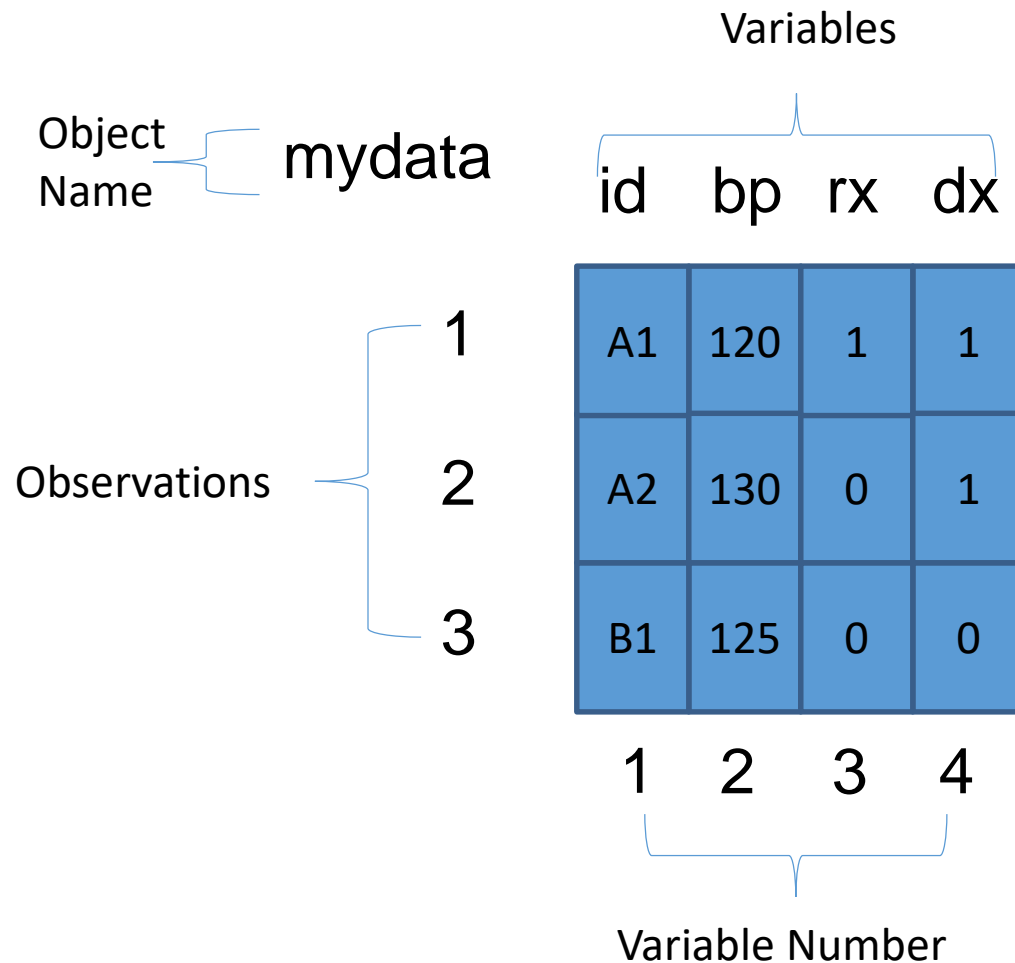


The RStudio Data Viewer pane shows the contents of the 'mydata' object. It displays a table with 3 rows and 4 columns: id, bp, rx, and dx. The data is as follows:

	id	bp	rx	dx
1	A1	120	1	1
2	A2	130	0	1
3	B1	125	0	0

Showing 1 to 3 of 3 entries

# Parts of a Data Frame



# Referencing a Data Frame

mydata	id	bp	rx	dx
1		120		
2		130		
3		125		
	1	2	3	4

**mydata\$bp** [1] 120 130 125

**mydata[,2]** [1] 120 130 125

**mydata\$dx[3]** [1] 0

**mydata[3,4]** [1] 0

**mydata[1,3:4]**  
rx dx  
1 1 1

# Activity: Explore the Births data

- Feel free to follow along with me or go on your own.

Use the [Dictionary](#) and your knowledge of data frames to explore the Births dataset to answer these questions:

1. How many observations / variables are there?
2. Characterize the distribution of the GEST variable: mean, sd, plot the distribution, how many missings?
3. Identify a **numeric** and **character** variable. Summarize the numeric variable by the categories of the character variable (tables, graphs, or stats)