Data Wrangling with the Tidyverse

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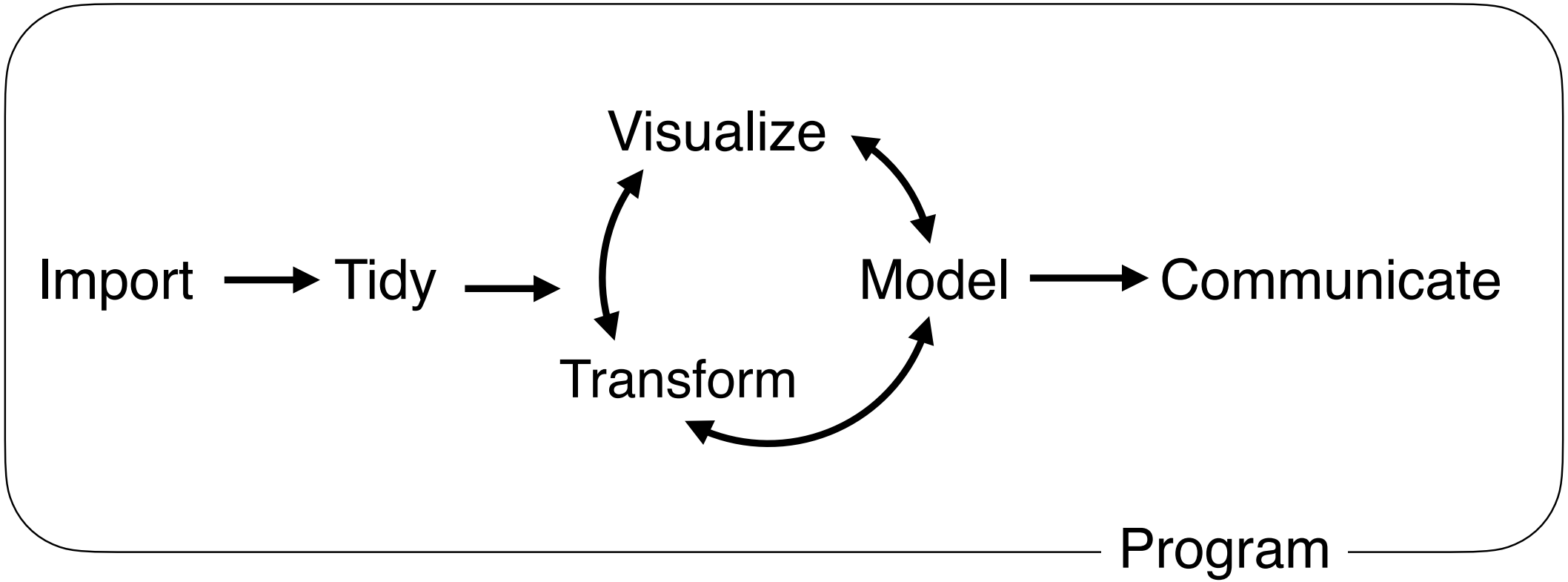
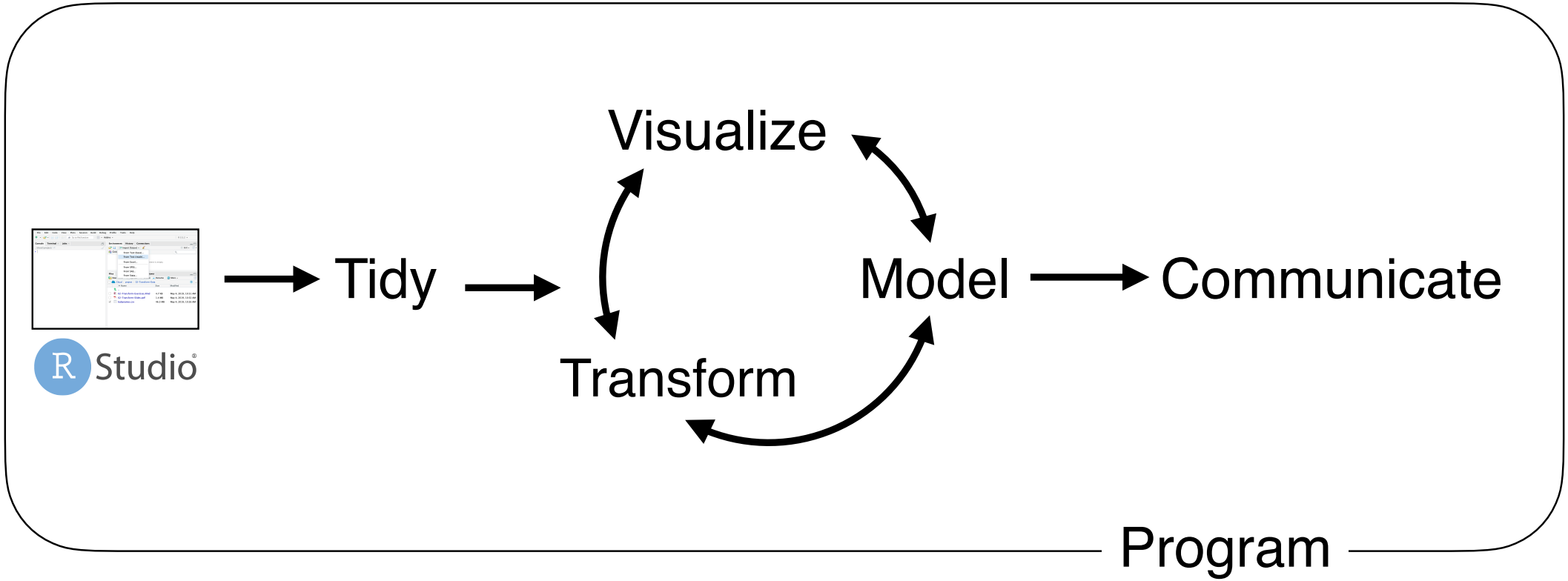
HELLO
my name is
Garrett

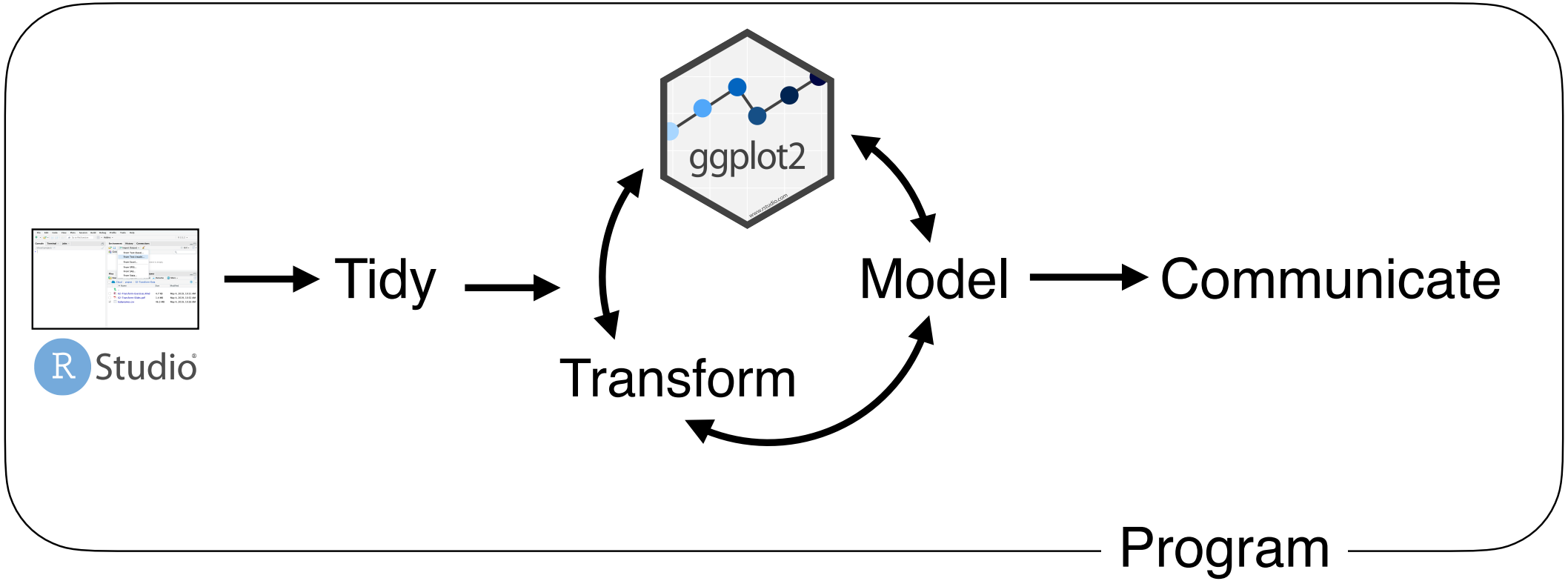
(Applied) Data Science



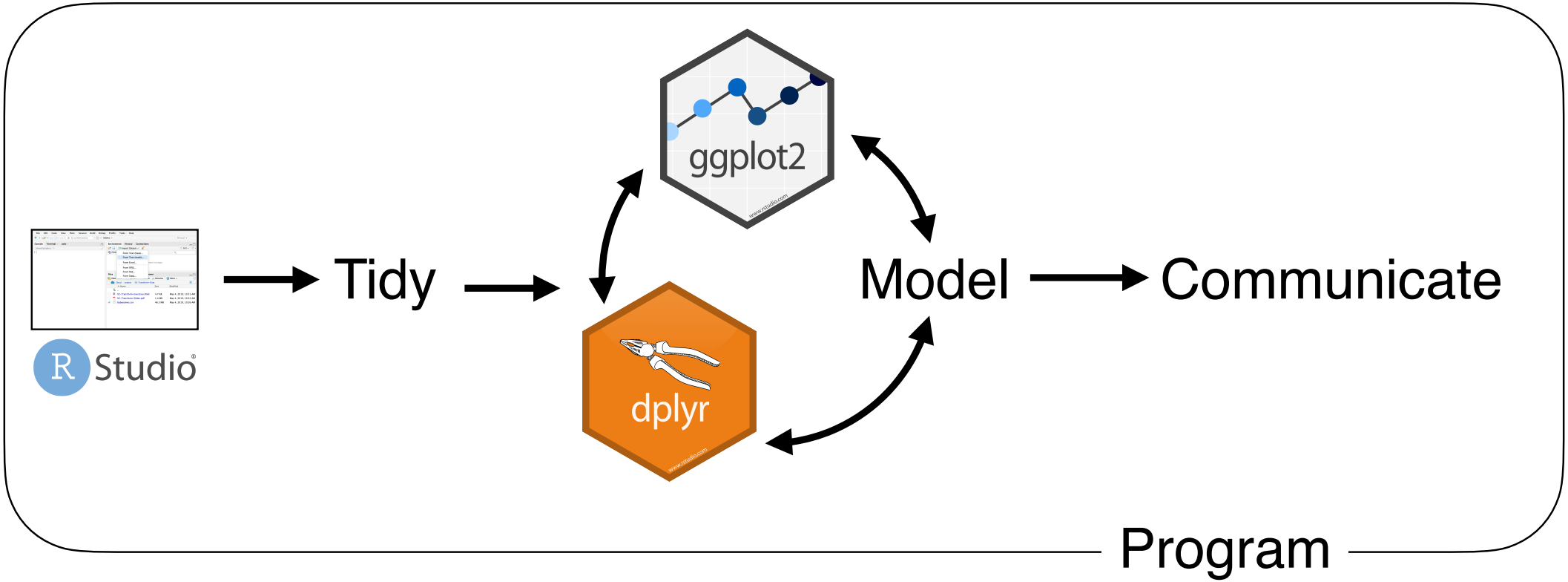
(Applied) Data Science



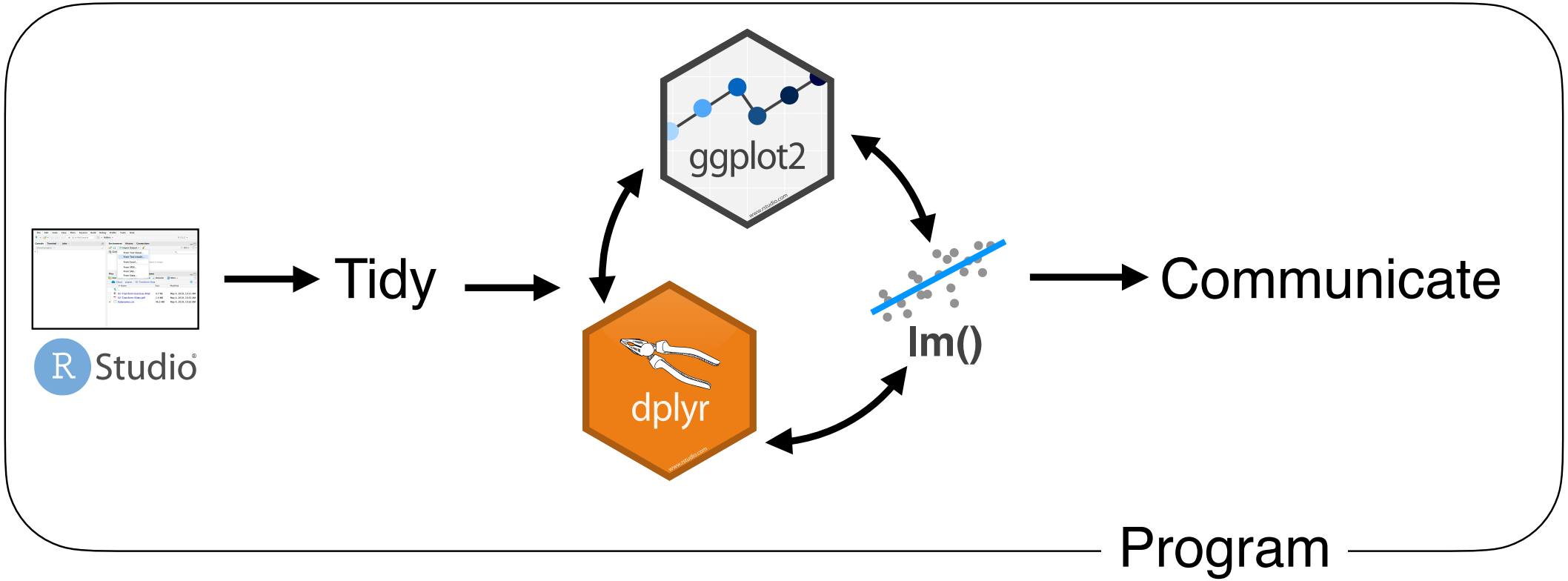
(Applied) Data Science



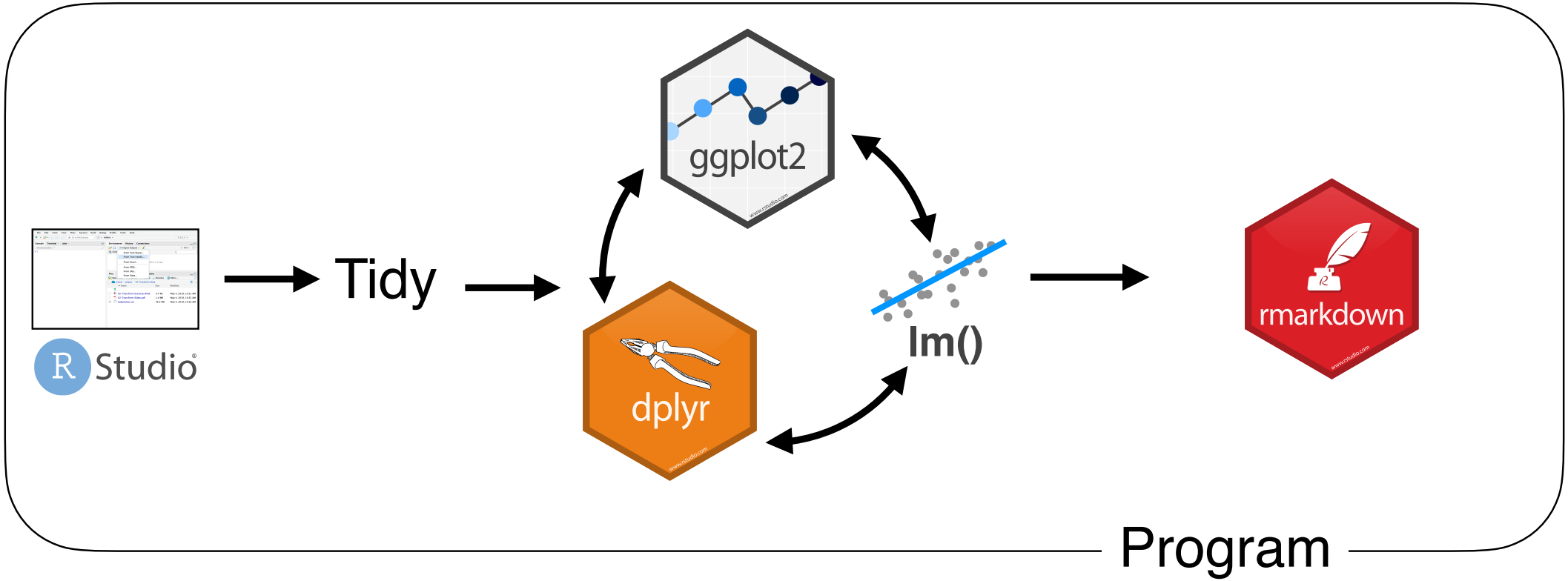
(Applied) Data Science



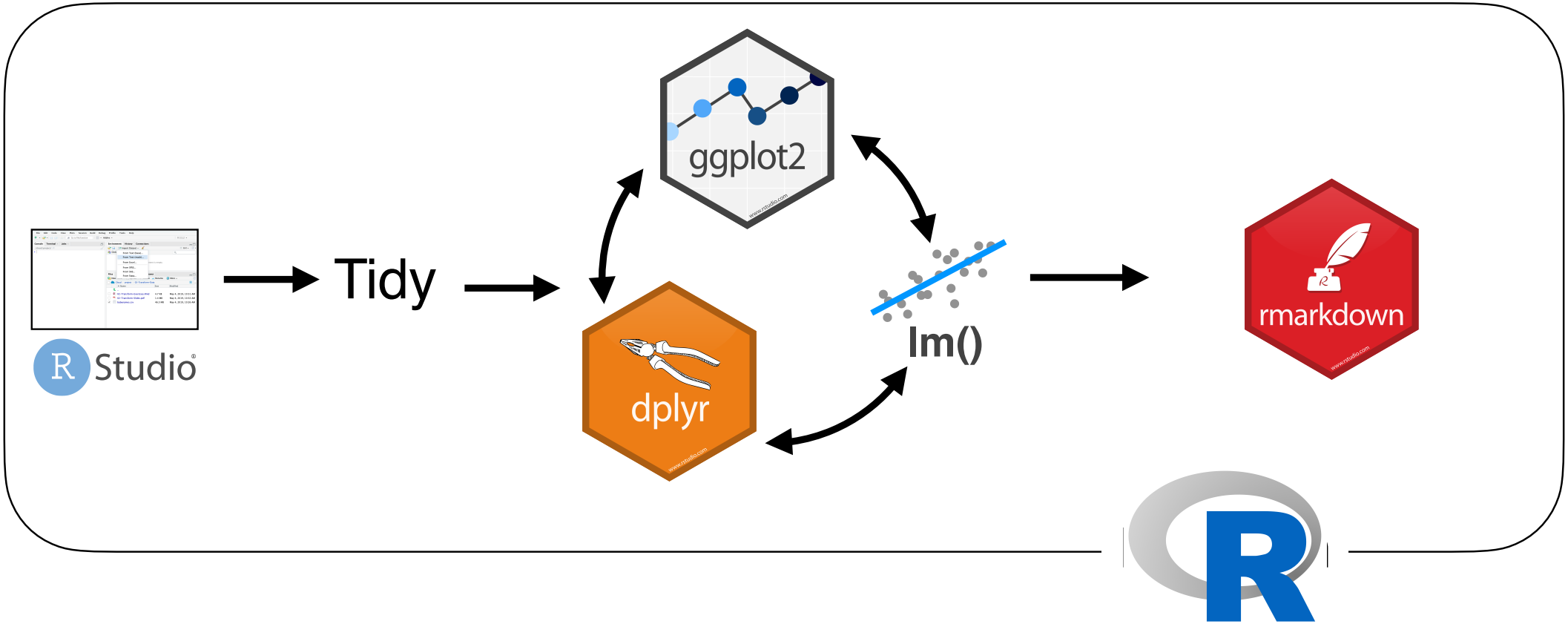
(Applied) Data Science



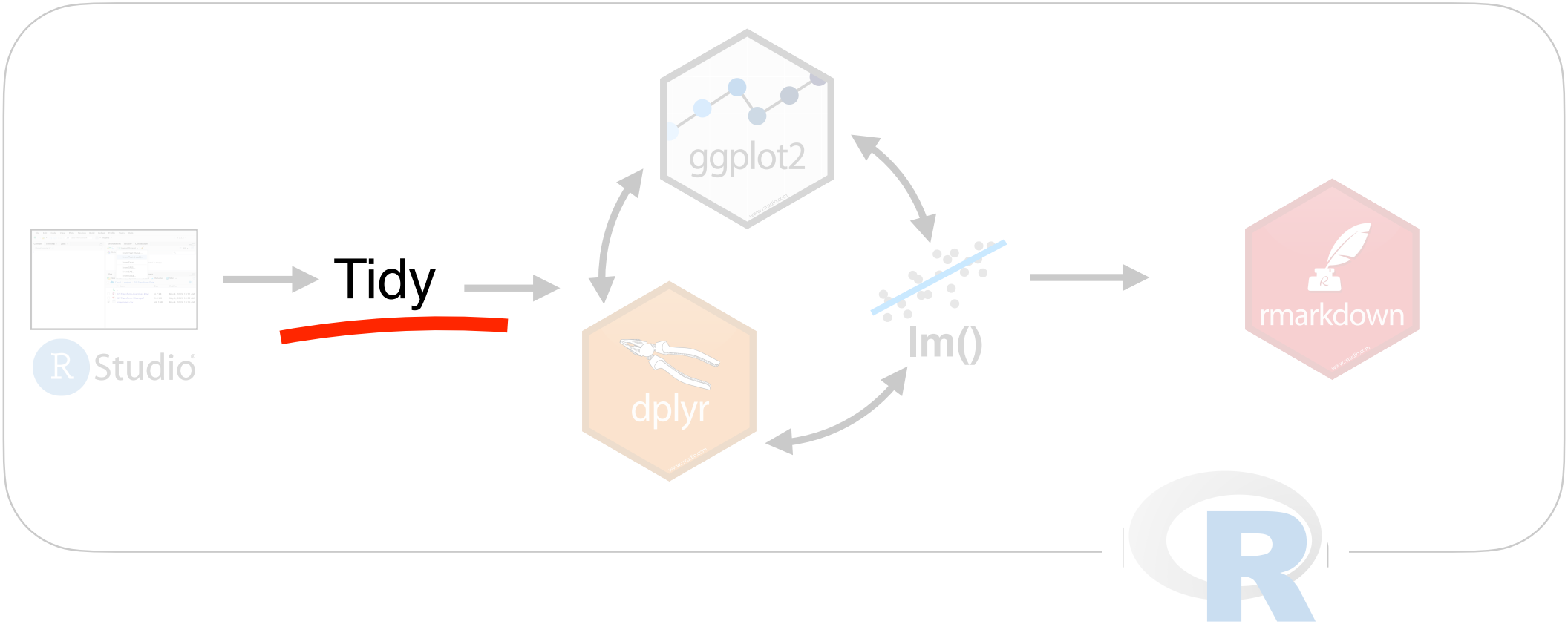
(Applied) Data Science



(Applied) Data Science



(Applied) Data Science



Your Turn

Form groups of 2-4 people. Introduce yourself and prepare for some group quizzes. Tell them:

1. Who you are
2. What you do with data
3. How long you have been using R

05:00

Quiz

What types of data are in this data set?

	time_hour	name	air_time	distance	day	delayed
1	2013-01-01 05:00:00	United Air Lines Inc.	13620s (~3.78 hours)	1400	Tuesday	TRUE
2	2013-01-01 05:00:00	United Air Lines Inc.	13620s (~3.78 hours)	1416	Tuesday	TRUE
3	2013-01-01 05:00:00	American Airlines Inc.	9600s (~2.67 hours)	1089	Tuesday	TRUE
4	2013-01-01 05:00:00	JetBlue Airways	10980s (~3.05 hours)	1576	Tuesday	FALSE
5	2013-01-01 06:00:00	Delta Air Lines Inc.	6960s (~1.93 hours)	762	Tuesday	FALSE
6	2013-01-01 05:00:00	United Air Lines Inc.	9000s (~2.5 hours)	719	Tuesday	TRUE
7	2013-01-01 06:00:00	JetBlue Airways	9480s (~2.63 hours)	1065	Tuesday	TRUE
8	2013-01-01 06:00:00	ExpressJet Airlines Inc.	3180s (~53 minutes)	229	Tuesday	FALSE
9	2013-01-01 06:00:00	JetBlue Airways	8400s (~2.33 hours)	944	Tuesday	FALSE
10	2013-01-01 06:00:00	American Airlines Inc.	8280s (~2.3 hours)	733	Tuesday	TRUE
11	2013-01-01 06:00:00	JetBlue Airways	8940s (~2.48 hours)	1028	Tuesday	FALSE

Quiz

What types of data is this?

"2013-01-01 05:00:00"

Quiz

What are the variables in this data set?

```
table1
```

country	year	cases	population
<chr>	<int>	<int>	<int>
Afghanistan	1999	745	19987071
Afghanistan	2000	2666	20595360
Brazil	1999	37737	172006362
Brazil	2000	80488	174504898
China	1999	212258	1272915272
China	2000	213766	1280428583

6 rows

Quiz

What are the variables in this data set?

```
table2
```

country	year	type	count
		<chr>	<int>
Afghanistan	1999	cases	745
Afghanistan	1999	population	19987071
Afghanistan	2000	cases	2666
Afghanistan	2000	population	20595360
Brazil	1999	cases	37737
Brazil	1999	population	172006362
Brazil	2000	cases	80488
Brazil	2000	population	174504898
China	1999	cases	212258
China	1999	population	1272915272

1–10 of 12 rows

Previous 1 2 Next

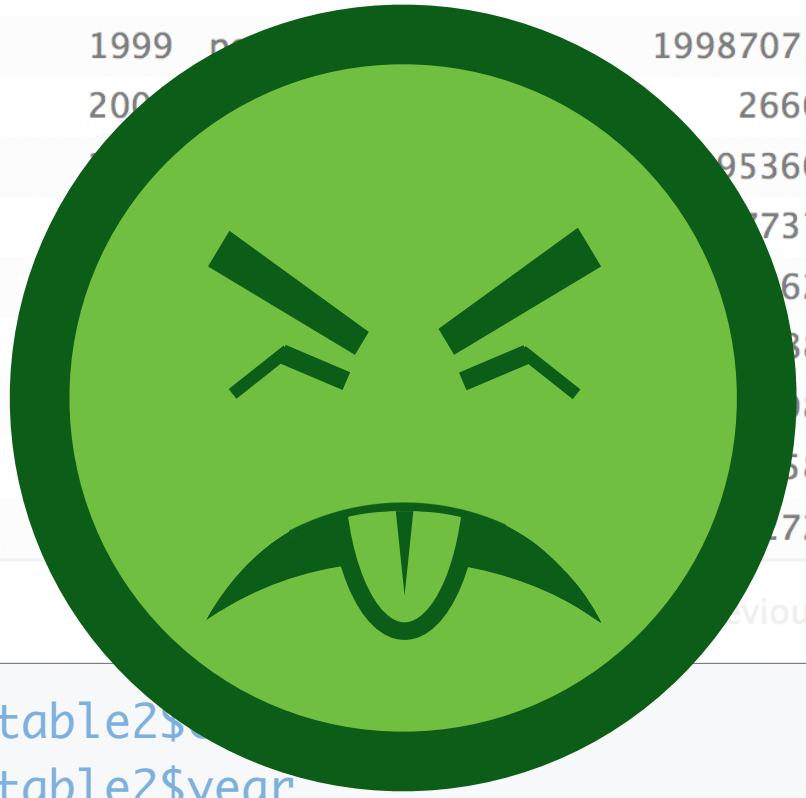
country <chr>	year <int>	cases <int>	population <int>
Afghanistan	1999	745	19987071
Afghanistan	2000	2666	20595360
Brazil	1999	37737	172006362
Brazil	2000	80488	174504898
China	1999	212258	1272915272
China	2000	213766	1280428583

6 rows

```
table1$country
table1$year
table1$cases
table1$population
```

country <chr>	year <int>	type <chr>	count <int>
Afghanistan	1999	cases	745
Afghanistan	1999	[illegible]	19987071
Afghanistan	200[illegible]	[illegible]	2666
Afghanistan	[illegible]	[illegible]	[illegible]95360
Brazil	[illegible]	[illegible]	[illegible]737
Brazil	[illegible]	[illegible]	[illegible]62
Brazil	[illegible]	[illegible]	[illegible]8
Brazil	[illegible]	[illegible]	[illegible]8
China	[illegible]	[illegible]	[illegible]8
China	[illegible]	[illegible]	[illegible]72

1–10 of 12 rows [illegible]vious 1 2 Next



```
table2$[illegible]
table2$year
table2$count[c(1,3,5,7,9,11)]
table2$count[c(2,4,6,8,10,12)]
```

"Better experimental design = simpler statistics.
Better data model = simpler analysis."

- Jenny Bryan

Outline

Introduction and Joining Data	8:30 - 10:15
Morning Break	10:15 - 10:30
Data Types	10:30 - 12:3
Lunch	12:30 - 2:00
Tidy Data	2:00 - 3:15
Afternoon Break	3:15 - 3:30
Lists	3:30 - 5:00

Your Turn

Go here and log in for the class materials

https://rstudio.cloud/project/385988

Navigate up to the **02-Join** folder.

Open **02-Join-Exercises.Rmd**

03:00