

---

## Michael Allen Sprint #2 Review

Write a Script in “R” to Connect to a “End of Sprint Survey” Created in Google Forms



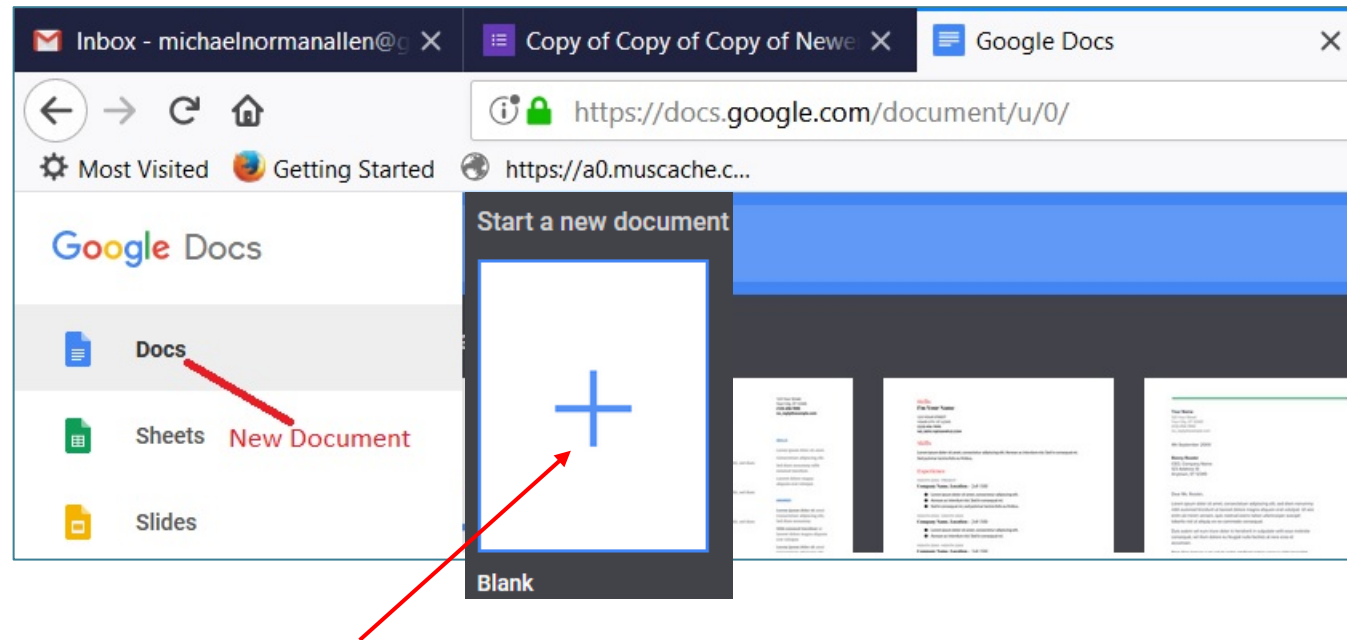
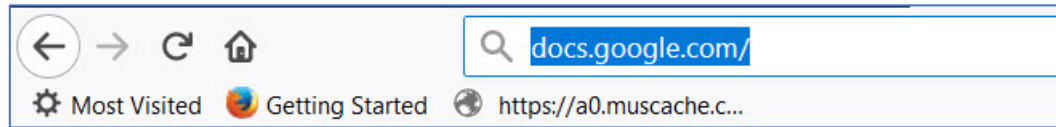
devleague

# Game Plan

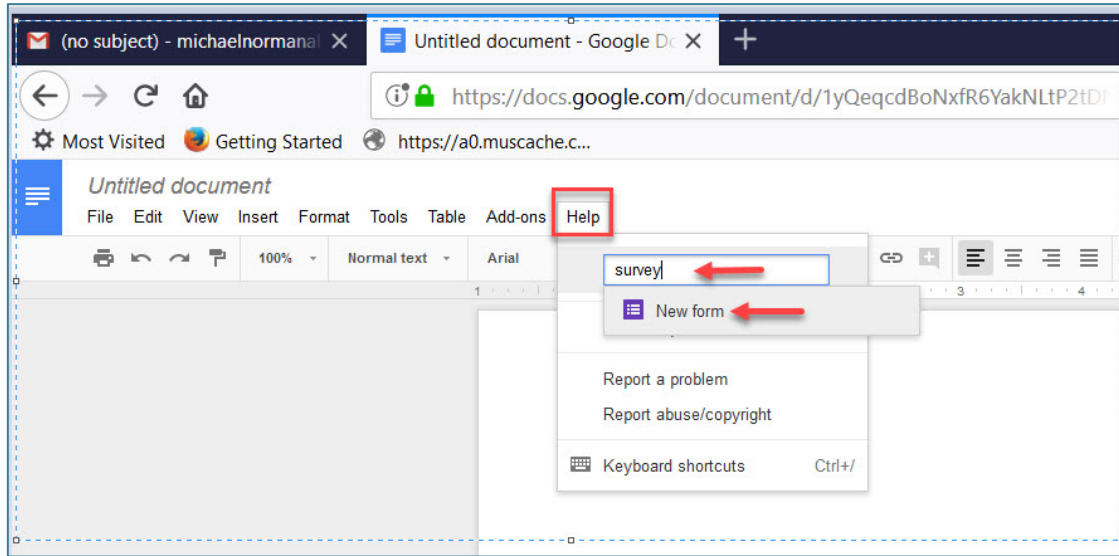
---

1. Create "End of Sprint Survey" in Google Forms
2. Fill out the "Google Form" Multiple times to Create "Mock Data"
3. Analyze the Results in "Google Forms"
4. Create a Spreadsheet in "Google Sheets"
5. Use R to read the "Google Sheet"
6. Write a "Script" in R to Speed-up the Process of Reading a Google Sheet into "R"
7. View the (Survey) Data in R

# Accessing Google Forms



# Accessing Google Forms II



A screenshot of the Google Forms editor interface. The title is 'Untitled form'. The 'QUESTIONS' tab is selected. The form description is 'Form description'. The question type is 'Multiple choice'. The question text is 'Untitled Question'. The options are 'Option 1' and 'Add option or ADD \*OTHER\*'. The 'Required' toggle is turned on. The interface includes a 'Form description' section and a 'QUESTIONS' tab.

# Create "End of Sprint Survey" in Google Forms

**End of Sprint Survey**

Form description

What Training Course did you attend?

- ☐ Java Web Engineer
- ☐ Cyber Security Professional
- ☐ Big Data Analyst
- ☐ Enterprise Software Developer

Do you have programming experience

- ☐ Yes
- ☐ No
- ☐ Very little

Who was your Training Instructor?

- ☐ Instructor #1
- ☐ Instructor #2
- ☐ Instructor #3
- ☐ Instructor #4
- ☐ Instructor #5

The Instructor's lecture was delivered clearly

Multiple choice

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree
- ☐ Add option or [ADD "OTHER"](#)

My Instructor was responsive to my questions and assisted in my learning.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

The pace (speed) of the training was appropriate for my learning.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

# Create "End of Sprint Survey" in Google Forms II

The length of the course was appropriate for my learning.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

The various support portals (GitHub, Slack, Trello, and Jupyter Notebook) were intuitive and easy to use.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

The Sprints were laid out well and useful to my learning.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

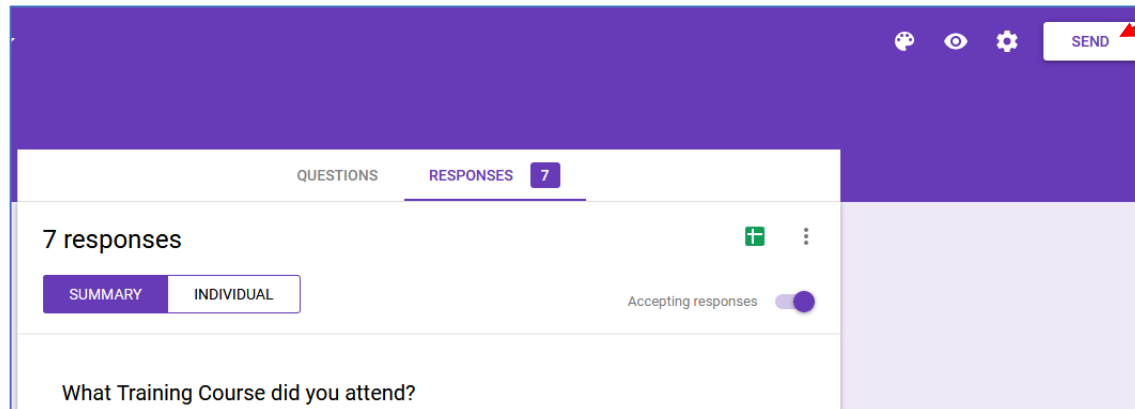
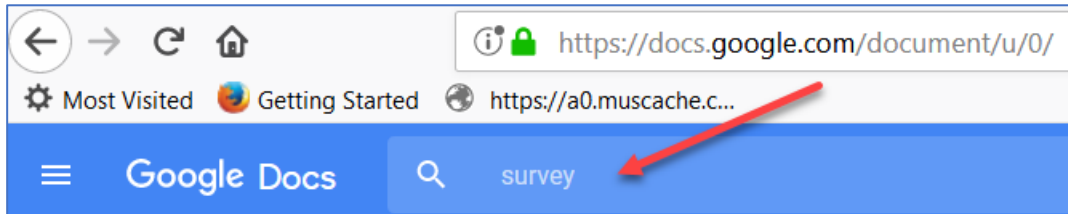
The classroom was comfortable (not too hot, not too cold, not too noisy) for learning.

- ☐ Strongly Agree
- ☐ Agree
- ☐ Disagree
- ☐ Strongly Disagree

Are you having fun

- ☐ Yes
- ☐ No
- ☐ Sometimes




# Accessing the End of Sprint Survey (for Mock Data)



# Accessing the Sprint Survey via Email or URL

Send form

☐ Collect email addresses

Send via   

Email

To

Awesome.Student@gmail.com

Subject

Newer End of Sprint Survey

Message




I've invited you to fill out a form:

☐ Include form in email

[Add collaborators](#) CANCEL SEND

Send form

☐ Collect email addresses

Send via   

Link

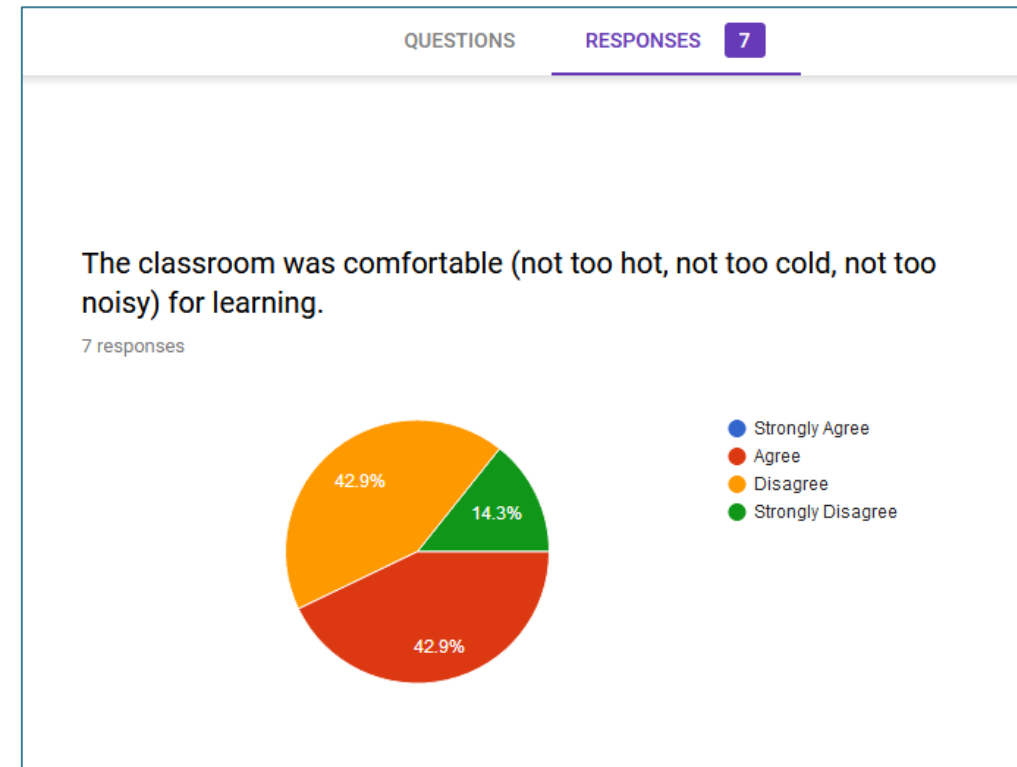
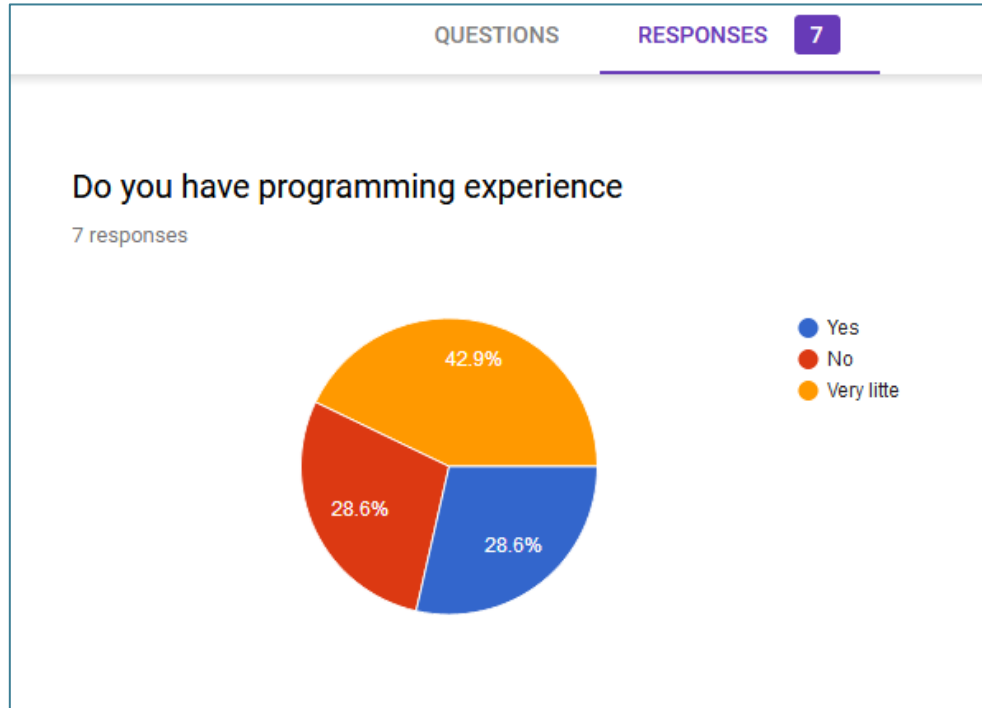
[https://docs.google.com/forms/d/e/1FAIpQLSfYtJ30lhToajt\\_tKpjlRMpmpIXfAUZv\\_4ccRG3HNvOcyzZPQ/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLSfYtJ30lhToajt_tKpjlRMpmpIXfAUZv_4ccRG3HNvOcyzZPQ/viewform?usp=sf_link)

☐ Shorten URL

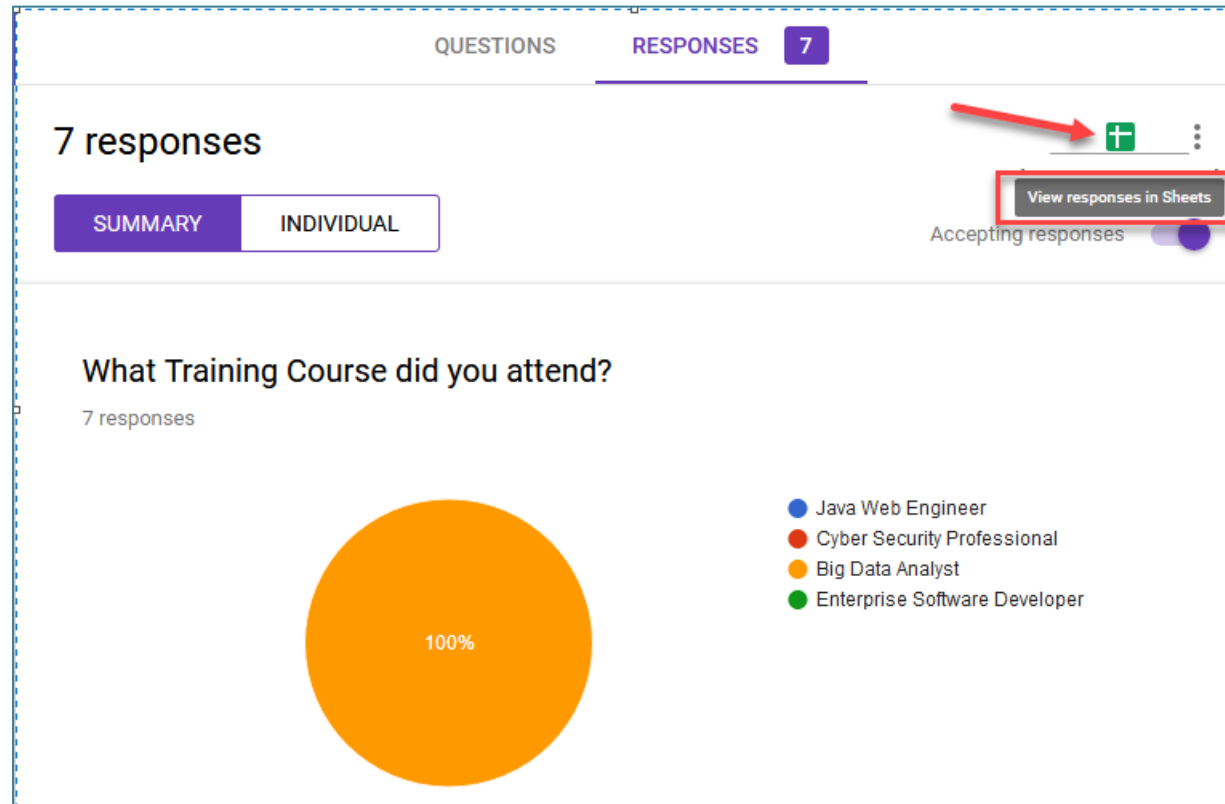
URL



# Analyze the Results in “Google Forms”



# Create a Spreadsheet in “Google Sheets”



# Shorten Questions (Column Headers) to One or Two Words

Do you have programming experience

	B	C	D
1	Course	Do you have programming experience	
2	Big Data Analyst	No	Instructor #1
3	Big Data Analyst	Very litte	Instructor #1
4	Big Data Analyst	Very litte	Instructor #1
5	Big Data Analyst	Yes	Instructor #1
6	Big Data Analyst	Yes	Instructor #1
7	Big Data Analyst	No	Instructor #1

Sprint\_2\_EOSS (Responses)

	B	C	D	E	F	G	H	I	J	K	L
1	Course	Experience	Instructor	Lecture	Responsive	Pace	Length	Portals	Sprints	Classroom	Having fun

# Determine Working Directory and Read Google Sheet file in R

```
getwd()
```

```
install.packages("googlesheets")
```

```
library(googlesheets)
```

```
gs_ls()
```

```
Sprint_2 <-
```

```
'https://docs.google.com/spreadsheets/d/1Oze5HnI8jEVtKvhwt2LbO42Ec5ErHI6_IArt  
3sS7HxY/edit#gid=319180982'
```

```
Sprint_2 <- gs_title("Sprint_2_EOSS (Responses)")
```

```
gs_ws_ls(Sprint_2)
```

```
Sprint_2 <- gs_read(ss=Sprint_2, ws = "Form Responses 1")
```

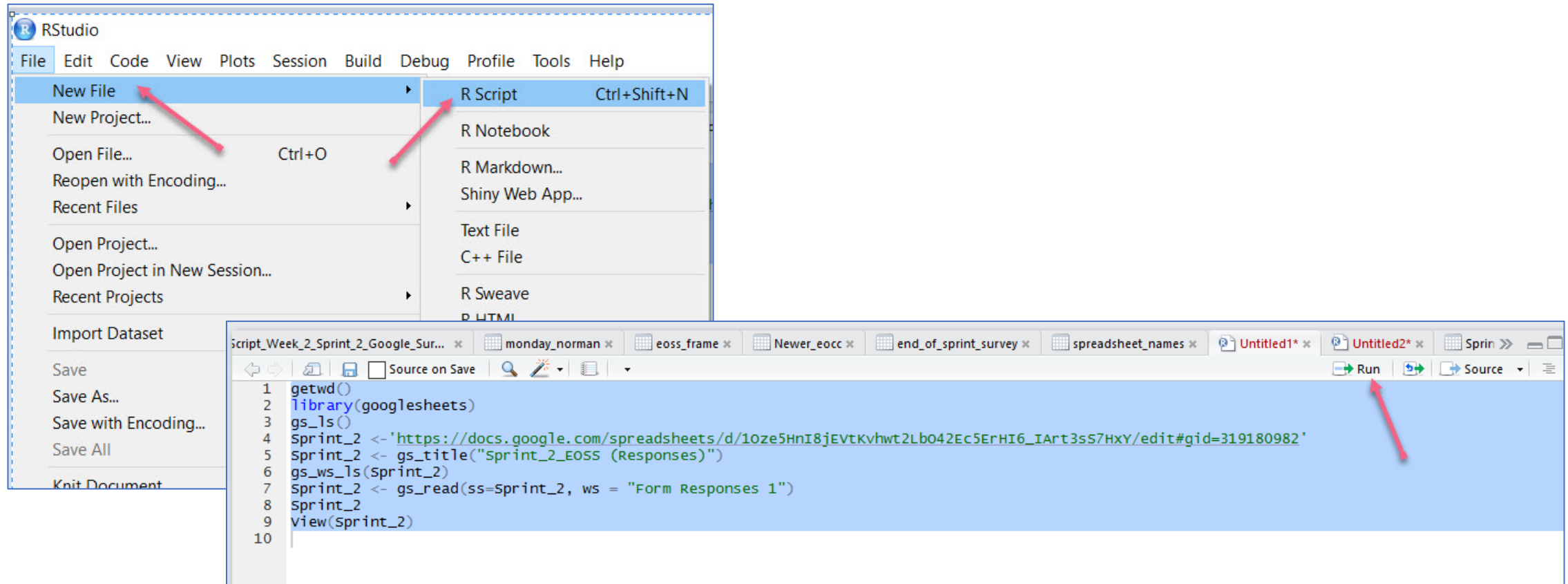
```
Sprint_2
```

```
View(Sprint_2)
```

# Reading the Google Sheet file in R

```
> sprint_2
# A tibble: 28 x 12
  Timestamp Course Experience Instructor Lecture Responsive Pace Length Portals Sprints Classroom `Having fun`
  <chr>      <chr>      <chr>      <chr>      <chr>      <chr>      <chr>      <chr>      <chr>      <chr>      <chr>      <chr>
1 11/30/2017 8:12:27 Big Data Analyst No Instructor #1 Disagree Disagree Agree Agree Agree Agree Strongly Disagree No
2 12/1/2017 8:12:27 Big Data Analyst very litte Instructor #1 Disagree Agree Agree Disagree Agree Agree Agree No
3 12/2/2017 8:12:27 Big Data Analyst very litte Instructor #1 Disagree Agree Agree Disagree Agree Agree Agree No
4 12/3/2017 8:12:27 Big Data Analyst Yes Instructor #1 Strongly Agree Agree Agree Disagree Agree Agree Disagree Yes
5 12/3/2017 8:12:54 Big Data Analyst Yes Instructor #1 Strongly Agree Strongly Agree Strongly Agree Agree Strongly Agree Strongly Agree Agree Yes
6 12/3/2017 8:15:01 Big Data Analyst No Instructor #1 Agree Agree Agree Agree Disagree Agree Disagree Disagree Sometimes
7 12/3/2017 8:15:42 Big Data Analyst very litte Instructor #1 Strongly Agree Strongly Agree Agree Disagree Agree Disagree Disagree Sometimes
8 11/30/2017 8:12:27 Big Data Analyst No Instructor #1 Disagree Disagree Agree Agree Agree Strongly Disagree No
9 12/1/2017 8:12:27 Big Data Analyst very litte Instructor #1 Disagree Agree Agree Disagree Agree Agree Agree No
10 12/2/2017 8:12:27 Big Data Analyst very litte Instructor #1 Disagree Agree Agree Disagree Agree Agree Agree No
# ... with 18 more rows
```

# Write a “Script” in R to Speed-up the Process of Reading the Data



# View the (Survey) Data in R

Week_1_of_Sprint_2_Survey_11_27_2... * Week_1_of_Sprint_2_Survey.R * Script_Week_2_Sprint_2_Google_Sur... * Untitled1* * Untitled2* * Sprint_2 * Untitled >>												
Filter												
	Timestamp	Course	Experience	Instructor	Lecture	Responsive	Pace	Length	Portals	Sprints	Classroom	Having fun
1	11/30/2017 8:12:27	Big Data Analyst	No	Instructor #1	Disagree	Disagree	Agree	Agree	Agree	Agree	Strongly Disagree	No
2	12/1/2017 8:12:27	Big Data Analyst	Very litte	Instructor #1	Disagree	Agree	Agree	Disagree	Agree	Agree	Agree	No
3	12/2/2017 8:12:27	Big Data Analyst	Very litte	Instructor #1	Disagree	Agree	Agree	Disagree	Agree	Agree	Agree	No
4	12/3/2017 8:12:27	Big Data Analyst	Yes	Instructor #1	Strongly Agree	Agree	Agree	Agree	Disagree	Agree	Disagree	Yes
5	12/3/2017 8:12:54	Big Data Analyst	Yes	Instructor #1	Strongly Agree	Strongly Agree	Strongly Agree	Agree	Strongly Agree	Strongly Agree	Agree	Yes
6	12/3/2017 8:15:01	Big Data Analyst	No	Instructor #1	Agree	Agree	Agree	Agree	Disagree	Agree	Disagree	Sometimes
7	12/3/2017 8:15:42	Big Data Analyst	Very litte	Instructor #1	Strongly Agree	Strongly Agree	Agree	Disagree	Agree	Disagree	Disagree	Sometimes
8	11/30/2017 8:12:27	Big Data Analyst	No	Instructor #1	Disagree	Disagree	Agree	Agree	Agree	Agree	Strongly Disagree	No
9	12/1/2017 8:12:27	Big Data Analyst	Very litte	Instructor #1	Disagree	Agree	Agree	Disagree	Agree	Agree	Agree	No
10	12/2/2017 8:12:27	Big Data Analyst	Very litte	Instructor #1	Disagree	Agree	Agree	Disagree	Agree	Agree	Agree	No
Showing 1 to 10 of 28 entries												

---

# Thank you