

# COMPSCIX 415.2 Homework 3

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*DUE DATE: Feb 20, 2018 @ 6:15PM*

## In this assignment...

...we will finish up with visualization in R using the `ggplot2` package and will move on to doing a little data wrangling or transformation. You'll learn some of the most commonly used data wrangling *verbs*.

Remember to make your document look good, which means you may need to change some settings on the figure sizes and locations, use markdown syntax to create headings or to format your text (use the cheatsheet), and you may want to play with the different themes.

Remember to save and knit often. Commit when you've completed a big chunk of work or when you are done for the day and will be resuming later.

## What to Turn In

Do not send a link to your file on Github. This was only an option for the first assignment. For this assignment you have two choices:

You can upload a pdf document (you will have to install latex);

You can upload a standalone html file.

## Prerequisite

Basic R Markdown knowledge

R and RStudio

`ggplot2`, `tidyverse`, and **`nycflights13`** package installed

Access to internet

git and Github

## To start your assignment

1. Open RStudio and install the `nycflights13` package.
2. Go to File -> Recent Projects
3. Click on the Project that you created during Homework 1. This project should be the one that is already under git version control.
4. RStudio will switch to that project and the Git pane should appear.
5. Go to File -> New File and choose either R Markdown or R Notebook.

6. Change the title (“COMPSCIX 415.2 Homework 3”) and add your name and the date to the YAML header.
7. Save the file in the same folder (or create a subfolder) with your other HW assignments.
8. Knit your document into an html or pdf document.
9. Go to the Git pane and commit both your Rmd and html (or pdf) files by clicking on the checkboxes next to the file names and hitting the Commit button. Write a useful message, and hit the commit button.

## Exercises

Here are the exercises for you to complete.

**Go to R for Data Science at <http://r4ds.had.co.nz/index.html>.**

Complete these Exercises:

Section 3.8.1: all exercises

Section 3.9.1: #2 and #4 only

Section 4.4: #1 and #2 only

Section 5.2.4: all exercises. You will need to install the `nycflights13` package and use the `flights` data.

Hint: to complete exercise #2 you only have to change the code from exercise #1.7.

Section 5.4.1: all exercises

**Answer these questions:**

No additional questions this week.

## Turn in your completed assignment

Commit your changes with the comment “finished assignment 3” and push your R Markdown file and your html or pdf file to Github.

This week you should turn in your assignment by uploading it to Canvas.