

Basics

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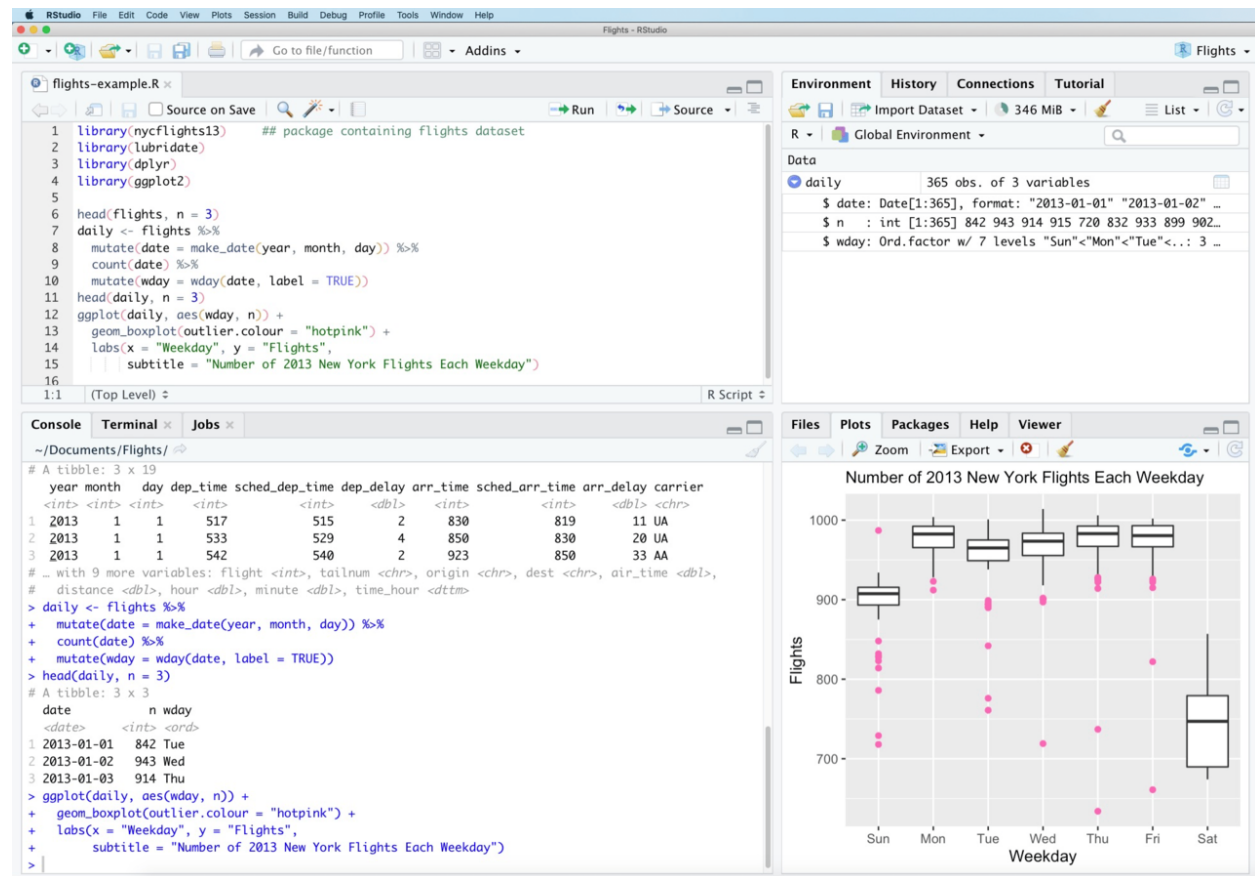
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Introduction

Rstudio is a statistical programming language used to create models and plots.

rstudio interface

```
knitr::include_graphics("images/Rstudio_IDE_screenshot.png")
```



Rstudio interface can be broken down into 4 area.

- **Top Left:** The file, you're currently working on.
 - file examples: r script, r markdown, python, and many more.
- **Top Right:** Includes Environment, History, Connection, Git, Tutorial.
 - Environment: This is where all your variables, data, and values are displayed.
 - History: History of code ran.

- Git: Github connection.
 - * Diff: Display the difference between your current file and the file on github.
 - * Commit, pull, push: pull up to date file from github. Commit changes on current file to github. Push your committed changes to github.
- **Bottom Left:** Includes Console, Terminal, Render, Background Jobs.
 - Console: The location of where code chunks are ran. Runs rstudio scripts.
 - Terminal: Command terminal
 - Render: Knitting render location.
- **Bottom Right:** Includes Files, Plot, Packages, Help, Viewer, Presentation
 - Files: Display of your files.
 - Plots: Display of your plots.
 - Packages: List of Packages.
 - Help: When help(xyz) function is ran. Display information about xyz

r setup

Ctrl+Alt+i = insert a new code chunk.

```
{r chunk-name, include=FALSE}
# code goes here
# include prevents code and results from appearing in the finished file.
# However, code in the chunk still runs and results can be used by other chunks.
# echo prevents code but results are still displayed.
```

First chunk of code will be used to setup rstudio packages and knitting settings. For example, **install.packages("tidyverse")**, after first installation of package, it is always ideal to comment (#) it out to reduce runtime (so it does not have to download the package every time you run). **library(tidyverse)**, to use the packages, you are required to load it with library function.

```
```${r setup, include=FALSE}
knitr::opts_chunk$set(echo = TRUE)
#install.packages("tidyverse")
library(tidyverse)
```
```

Github

Reference

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