R for homework assignments

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R is a powerful environment for statistical computing and graphics. We will be using R for homework assignments as it is supported by the Stats Workshop. I would not say that you will "learn R" in this course. Instead you'll get example code in class notes or templates that you can modify to do your analyses. Your focus should be on getting practice with data wrangling, analysis, and **interpretation** of the results. In the course of doing the homework assignments you will probably pick up a bit of R and you will have a set of templates for doing future analyses (e.g., as a lab assistant at SFU), but you will not be a serious R user. Students interested in learning R should consider taking Stat 341.

R may be downloaded from the Comprehensive R Archive Network and comes with its own user interface called the R console. However, I recommend that you use one of the following three R user interfaces, because they all have facilities for integrating text, R code and R output that will simplify the process of doing your assignments:

1. RStudio Desktop – To get started, see Getting started with R and RStudio for instructions.
2. RStudio Cloud – To get started, see Getting started with RStudio Cloud for instructions.
3. R via Jupyter – To get started, see the Stat Workshop's R/Jupyter page [**ADD LINK to the Stat Workshop's R/Jupyter page for Fall 2018 once it is created**]

These interfaces are all supported by the Stat Workshop. A partial list of the pros and cons of each interface are given in the table below:

Interface	pros/cons	Comments
RStudio Desktop	pros	Can be installed on your personal computer. Has well-developed tools for authoring documents such as homework assignments. Supported by an extensive online community of users.
	cons	Can be difficult to install for some with non-standard setups on their computers such as Chinese characters.
RStudio Cloud	pros	Access via the internet. A Cloudera (Amazon) server with the same interface as RStudio Desktop, but you don't have to install it yourself.
	cons	As an internet server it can be slow to respond and experience outages.
R via Jupyter	pros	Access via the internet, so you don't have to install anything yourself. Local server maintained at UBC. Jupyter tutorials are available from the Stat Workshop Canvas site.
	cons	Serves undergrads at both UBC and SFU, and so slowdowns or outages may occur before assignments are due or during other high-volume periods.