Introduction to R

Welcome to 14.310x and to Introduction to R!

As you will need to be comfortable with R in order to complete your homework assignments, we have put together a R course based on the open source software "swirl." The short, interactive course will allow you to learn R effectively as you get started! In this course, you will learn R as we go along, but we've prepared a Week 0 to help you get started.

Step 1: First begin by installing R - instructions can be found here.

The Week 0 course we've prepared contains two main courses: one in base-R and one on Tidyverse. Tidyverse is a collection of R packages designed for data science. An R package is a collection of functions, data, and documentation that builds on base R. The packages in Tidyverse share a common philosophy of statistical programming, and are designed to work together easily. For more information on Tidyverse and its data science packages, see here: https://www.tidyverse.org/packages/. We believe that understanding Tidyverse in addition to base-R is important as Tidyverse contains powerful and simple tools necessary for data manipulation for our purposes. However, understanding base-R is crucial to build a solid foundation. The world of base-R is also much larger than the Tidyverse, which means that you will not be limited to the methods in Tidyverse packages, if you outgrow them.

We will focus mainly on the following Tidyverse packages after completing the base-R course:

- Dplyr: manipulates data (i.e. creates tables, groups, etc.)
- Tidyr: tidies data (i.e. fixes and cleans messy datasets)

Though if you continue working with data beyond this course, you will likely find the others very useful as well.

The base-R course within Intro to R will focus on basic R concepts and methods, such as variable creation, working directory management, and simple logic. After the base-R course is complete, you will be guided through some exercises to better understand Tidyverse and how to prepare datasets.

To access the course, continue with the steps:

Step 2: Download these instructions, which describe how to install and run the R courses

Step 3: Download the Intro to R course. This course is **strictly required** and you will be expected to know this information for the purposes of this class.

For more R help, please consult the Additional R Resources page.

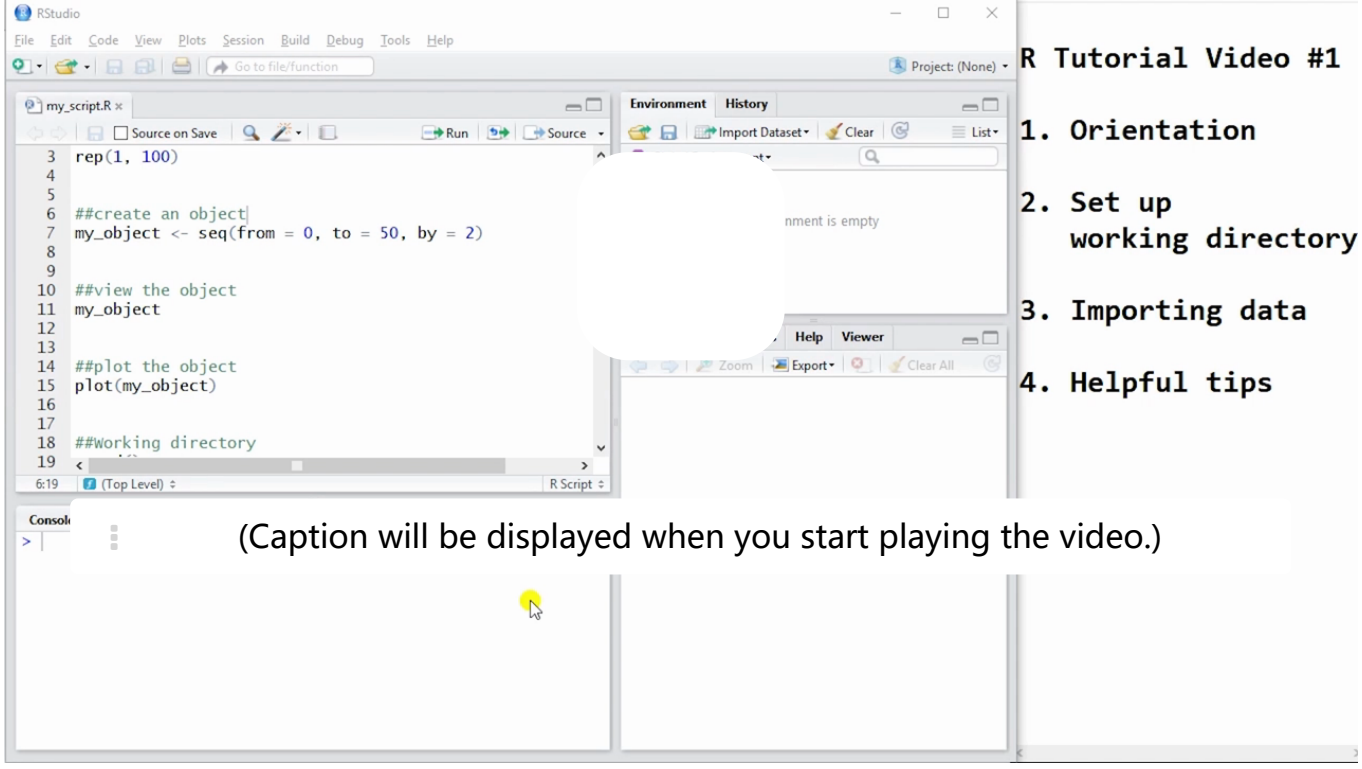
Also, remember, Google is your friend! There is a large and helpful online community of programmers that have encountered (and solved) many of the problems you are going to come across in the future. A great way to tap into their collective knowledge is to search online for the specific error message you receive. We cannot emphasize this enough.

And lastly, please feel free to post any questions you have in the discussion forum!

**Please note the swirl course materials found in the downloadable materials are subject to an open source license found which can be found here.*

R Orientation

Start of transcript. Skip to the end.



Welcome to the first R tutorial video,

where we'll go over some of the basics of working

with the programming language R. The video will provide

a general orientation to the RStudio workspace,

how to set up your working directory, how to import a data

set and provide a few tips for coding in R.

视频

下载视频文件

字幕

下载 SubRip (.srt) file

下载 Text (.txt) file

Video by: Phil Andrew Martin, PhD candidate, Department of Political Science at MIT.

In case you are having trouble installing the R course, here are some tips:

For Mac users:

If your OS or browser automatically unzips downloaded zip files, and the folder is no longer in zip form. Please do the following.

Right click the downloaded folder, select “compress”, and make sure that it ends with .zip.

Other users:

OPTION 1: CHANGE FILE PATH

1. Make a new course folder - I strongly suggest saving this on your desktop (to keep things simple).

2. Download the course zip file "Intro to R" directly from the course page into your new folder.

3. Start RStudio.

4. In the top menu, choose Session, then Set Working Directory, and Choose Directory. Now just point to the created folder where the zip course file is saved.

5. Type *library("swirl")* then *swirl()*

6. Type install_course_zip("14_310x_Intro_to_R.zip",multi=FALSE)

7. Type *swirl()*

OPTION 2: USE URL

1. Type:

    install_course_url("https://prod-edxapp.edx-cdn.org/assets/courseware/v1/8ae5204802d13b0733aa818f36dfc15d/asset-v1:MITx+14.310x+1T2019+type@asset+block/14_310x_Intro_to_R.zip")

1. Type *swirl()*

    After this, you should see:

    Welcome to swirl! Please sign in. If you've been here before, use the same name as you did then. If you are new, call yourself something unique.

讨论

主题: Module 0 / Introduction to R

显示讨论