

# Lab 1: Getting Started

**Due:** Monday, January 15, 11:59 PM

**Name:** [Your name here]

**Mac ID:** [The first half of your Mac email address]

## Overview

The first lab will help you set up R and RStudio and create a working directory for this class on your computer or the cloud.

## Part 1: Set up R and RStudio

Complete the following tasks:

1. See [popw24.gustavodiaz.org/resources](http://popw24.gustavodiaz.org/resources) for instructions on how to install R and RStudio across different platforms. Alternatively, visit [posit.cloud](https://posit.cloud) and sign up for a new account or log in if you already have one. A free account should be enough for the purposes of our class.
2. Launch RStudio and open the .qmd version of this lab.
3. To create PDF reports for assignments in this class, you need to have a version of  $\LaTeX$  installed.  $\LaTeX$  is a typesetting software, and we won't use it directly in this class, but R will call it under the hood to generate reports. We will use [TinyTex](https://tinytex.org/), an

R-friendly L<sup>A</sup>T<sub>E</sub>X distribution. Running the code below will install TinyTex. You only need to do this once after a fresh installation of R and RStudio. You may skip this step in Posit Cloud.

```
# Install the tinytex R package, only need to do this once
install.packages('tinytex')

# Use the package to install TinyTex within R
tinytex::install_tinytex()
```

4. At the top of the .qmd file, replace [Your name here] with your first and last name. For example, I would write “Gustavo Diaz” without the quotation marks,
5. Replace [The first half of your Mac email address] at the top with your Mac ID. For example, I would write “diazg2”

## Part 2: Create a working directory

Complete the following tasks:

1. Make a folder for this class somewhere on your own computer or in Posit Cloud, preferably not on your desktop. For example, mine is C:\Users\gdiaz\Projects\popw23\_labs because this is the folder I use to create the weekly lab assignments.
2. In RStudio, go to **File > New Project** in the toolbar at the top. This should pop up a new window with options.
3. Choose the “Existing Directory” option. Browse and select the folder that you just created. Then select “Create Project.” RStudio will reload and open the newly created project.
4. Inside this new project folder, create two more folders called `labs` and `response_papers`

5. Save this .qmd file in the newly created `labs` folder
6. To confirm that it worked, run the following code to print your working directory, it will also show up in the PDF version:

```
getwd()
```

```
[1] "C:/Users/diazdia2/Projects/popw24/content/labs"
```

## Part 3: Course website

Before compiling a PDF report, familiarize yourself with the course website at [popw24.gustavodiaz.org](http://popw24.gustavodiaz.org) and answer the following questions:

1. **What is the deadline to decide whether you will complete the optional final project?**

Write your answer here

2. **How many points from your final grade would you lose if you do not deliver a weekly lab assignment for the third time?**

Write your answer here

3. **How many times did I ~~strike~~ the plural of formula?**

Write your answer here

## Part 4: Create a PDF report and submit

To make a PDF report, press the **Render** button at the top of the text editor in RStudio. This may take a while the first time you do it, and you may be prompted to install additional  $\text{\LaTeX}$  dependencies. When done, the PDF version will pop-up in a new window and the PDF file will be saved in the same folder as the .qmd version.

Once you are done, you can find a link to upload your file in the **Assessments > Assignments** tab of the course page in Avenue. This is how you will submit all the assignments for this course.