

Hands-On Activity: Cloud access to RStudio

TOTAL POINTS 1

1.



Activity overview

By now, you've learned about RStudio, an integrated development environment that allows you to more efficiently create and manage projects using R. In this activity, you will learn how to access the cloud version of RStudio.

Upon completing this activity, you will be more familiar with the RStudio interface and comfortable using its basic tools. This is a foundational step that will prepare you for upcoming RStudio activities during this course. This hands-on activity, and the future RStudio activities you will complete, are essential to developing job-ready R programming skills.

Access RStudio Cloud

RStudio Cloud is the primary tool you will use for this course. In order to use RStudio Cloud, you need stable internet access. It won't matter what operating system you have because it works in your browser.

You can also install a desktop version, which you can download based on instructions provided in the next (optional) activity. This is a good alternative if you want to be able to work with R offline.

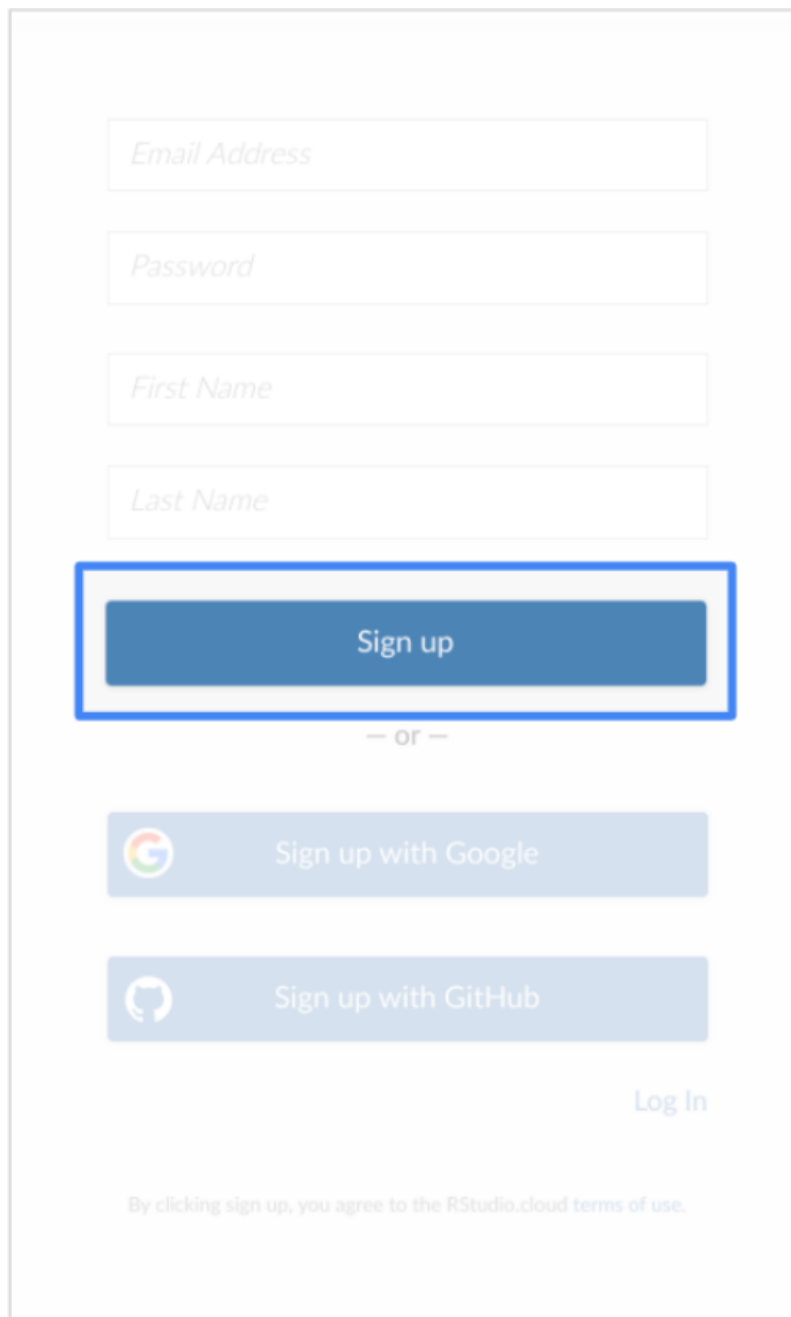
In order to access RStudio Cloud, follow these steps:

1. Sign up for an account at the [RStudio Cloud sign-up page](#).

The screenshot displays the RStudio Cloud pricing page. At the top, the RStudio Cloud logo is on the left, and 'Log In' and 'Sign Up' links are on the right. Below the header, the 'Available Plans' section is shown. Four plans are listed: 'Cloud Free', 'Cloud Premium', 'Cloud Instructor', and 'Cloud Organization'. The 'Cloud Free' plan is the active selection, highlighted with a grey background. It includes a description of the plan's purpose and a list of features: 'Up to 15 projects total', '1 shared space (5 members and 10 projects max)', '15 project hours per month', 'Up to 1 GB RAM per project', 'Up to 1 CPU per project', and 'Up to 1 hour background execution time'. A 'Plus' button is visible below the description. At the bottom right of the page, a 'Sign Up' button is highlighted with a blue border.

Here, you will find more information about RStudio Cloud, including the pricing plans. You will use the free version throughout this course, but it does have a few limitations. You can only have up to 15 projects on your free account, and can only use 15 project hours per month. You might consider upgrading later on if you find yourself using RStudio a lot.

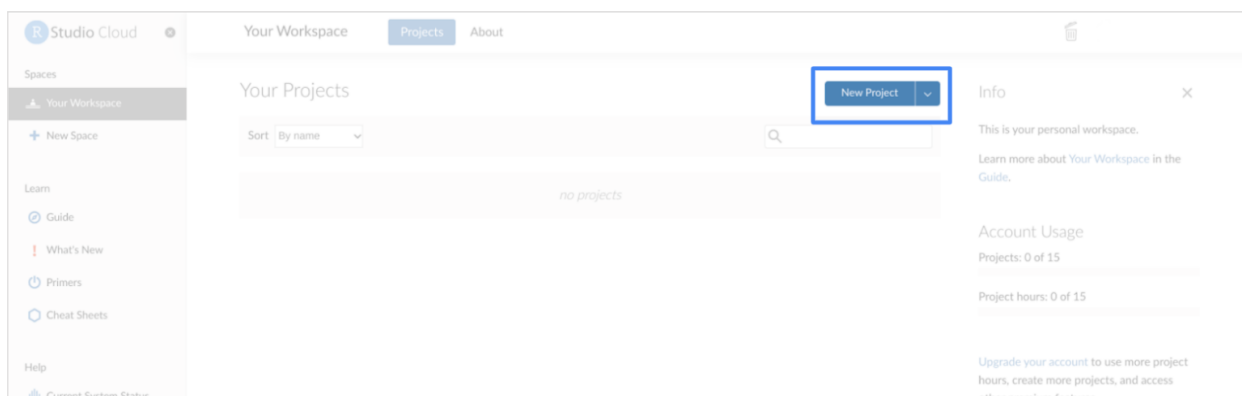
2. For now, click the **Sign Up** button on the bottom-right to start with the free version.



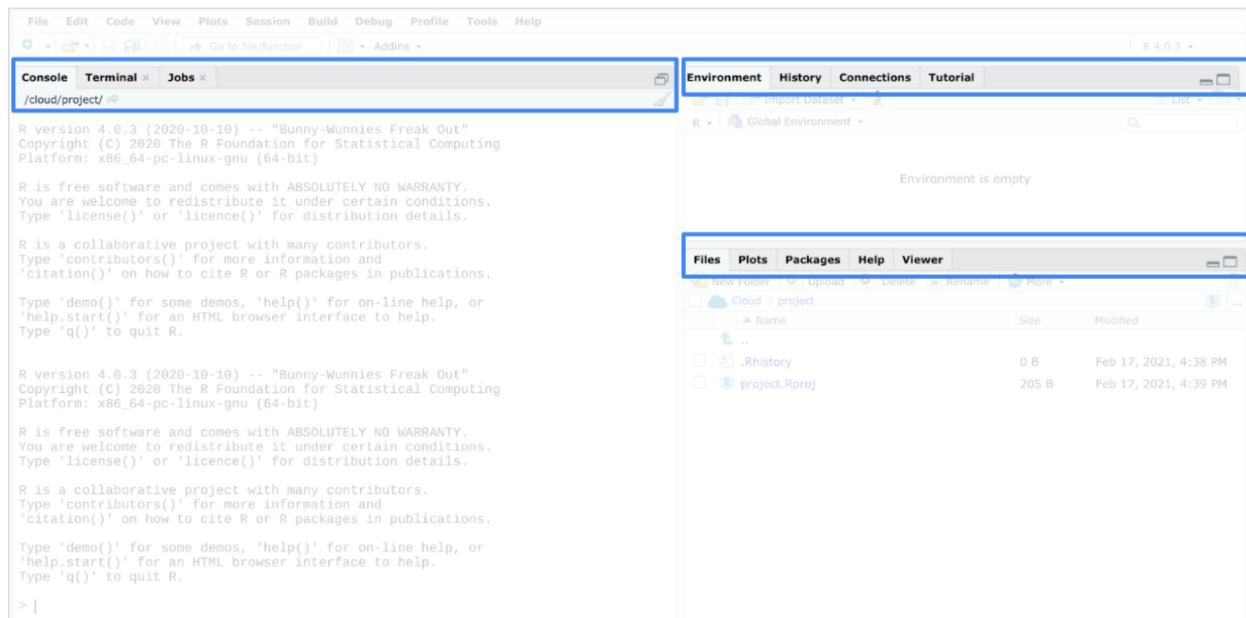
The image shows the RStudio Cloud sign-up form. It features four input fields for 'Email Address', 'Password', 'First Name', and 'Last Name'. Below these is a prominent blue 'Sign up' button, which is highlighted with a blue rectangular border. Underneath the button is a separator '— or —'. Further down are two light blue buttons: 'Sign up with Google' (with the Google logo) and 'Sign up with GitHub' (with the GitHub logo). To the right of these buttons is a 'Log In' link. At the bottom, a small line of text states: 'By clicking sign up, you agree to the RStudio.cloud terms of use.'

3. Input your email, a password, as well as your first and last name.

4. Once you have signed up, open RStudio Cloud for the first time.



5. Click **New Project** to create a new project workspace and open the RStudio Cloud console.



Install and load packages

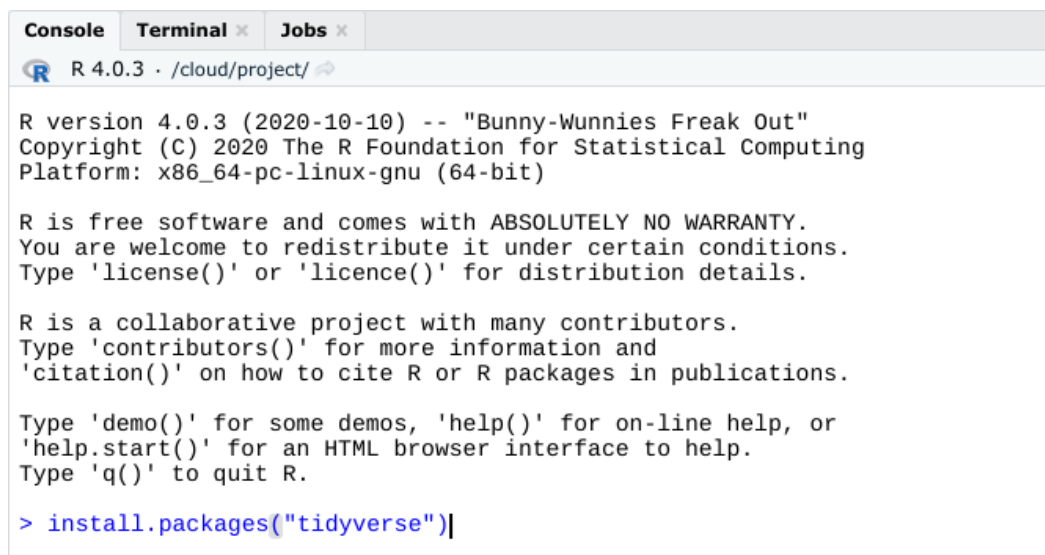
Once you have opened a new project in your console, you can install packages to RStudio Cloud.

Packages are units of reproducible R code. Members of the R community create packages to keep track of the R functions that they write and reuse. Packages offer a helpful combination of code, reusable R functions, descriptive documentation, tests for checking your code, and sample data sets.

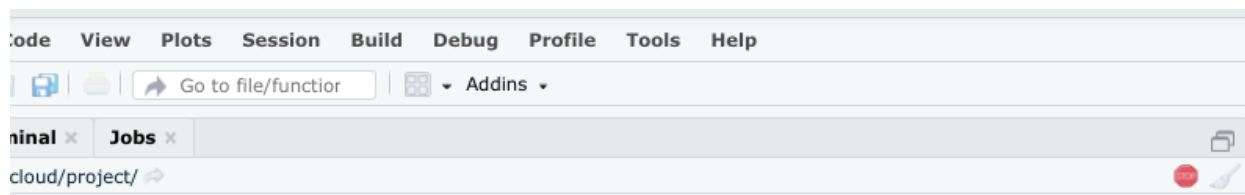
The `lubridate` package that you are about to install is part of the **tidyverse**. The tidyverse is a collection of packages in R with a common design philosophy for data manipulation, exploration, and visualization. For a lot of data analysts, the tidyverse is an essential tool. You will learn more about the tidyverse later on in this course.

To install the core tidyverse packages and load them, follow these steps:

1. In the bottom of the console, type `install.packages("tidyverse")` and press **Enter** (Windows) or **Return** (Mac).



This may take a while. You can tell if the process is still running by checking the red **Stop** icon in the upper right of the console. You can click this icon to interrupt the running code and cancel the command.



You can tell that the process is complete when the cursor reappears in the bottom of the console.

```
* installing *binary* package 'tidyr' ...
* DONE (tidyr)
* installing *binary* package 'broom' ...
* DONE (broom)
* installing *binary* package 'modelr' ...
* DONE (modelr)
* installing *binary* package 'tidyverse' ...
* DONE (tidyverse)
```

```
The downloaded source packages are in
  '/tmp/RtmpEASzb7/downloaded_packages'
```

```
> |
```

2. Load the tidyverse library with the **library()** function. To load the core tidyverse, type **library(tidyverse)** and press **Enter** (Windows) or **Return** (Mac).

You only need to install a package once, but you need to reload it every time you start a new session.

```
> library(tidyverse)
— Attaching packages — tidyverse 1.3.1 —
✓ ggplot2 3.3.5      ✓ purrr 0.3.4
✓ tibble 3.1.2       ✓ dplyr 1.0.7
✓ tidyr 1.1.3        ✓ stringr 1.4.0
✓ readr 1.4.0        ✓ forcats 0.5.1
— Conflicts — tidyverse_conflicts() —
x dplyr::filter() masks stats::filter()
x dplyr::lag()     masks stats::lag()
```

3. Load the lubridate package. Type **library(lubridate)** into the console pane and press **Enter** (Windows) or **Return** (Mac).

```
> library(lubridate)
Attaching package: 'lubridate'

The following objects are masked from 'package:base':

  date, intersect, setdiff, union

> |
```

After you complete these steps, you can exit RStudio. Feel free to explore RStudio Cloud on your own to get more familiar with the tools and practice what you are learning in this course.