Project 1:

In this project I would like you to submit proof of successful installation of R and RStudio. You need to attach progress photos to the project demonstrating the steps you followed to complete installation.

A computer screen capture

Description automatically generated with medium confidence

* Here’s my R Studio Cloud version that I got during your class

A computer screen capture

Description automatically generated with medium confidence

* Here’s my R Studio that I got for Jobanys class

A picture containing chart

Description automatically generated

* Here’s R and R studio in my files

In addition, you need to include the tasks listed below:

1: Install two R-packages and explain the utility of them. Compare these packages to others with similar capability

* Many useful R function come in packages, free libraries of code written by R's active user community. To install an R package, open an R session and type at the command line
* install.packages("<the package's name>")
* R will download the package from CRAN, so you'll need to be connected to the internet. Once you have a package installed, you can make its contents available to use in your current R session by running
* library("<the package's name>")

A computer screen capture

Description automatically generated with medium confidence

* Here I installed the package lubridate (To Manipulate Data).
* Lubridate makes working with dates and times easier
* Other To Manipulate Data options are:
* tidyverse - An opinionated collection of R packages designed for data science that share an underlying design philosophy, grammar, and data structures.
* dplyr - Essential shortcuts for subsetting, summarizing, rearranging, and joining together data sets. dplyr is our go to package for fast data manipulation.
* tidyr - Tools for changing the layout of your data sets. Use the gather and spread functions to convert your data into the tidy format, the layout R likes best.
* stringr - Easy to learn tools for regular expressions and character strings.

A computer screen capture

Description automatically generated with medium confidence

* Here I installed maps package (For Spatial Data)
* Maps - Easy to use map polygons for plots
* Other For Spatial Data options are:
* sp, maptools - Tools for loading and using spatial data including shapefiles.
* ggmap - Download street maps straight from Google maps and use them as a background in your ggplots.

2: List any potential problem that you had during installation

* Lubridate (no problems):

> install.packages("lubridate")

Installing package into ‘/cloud/lib/x86\_64-pc-linux-gnu-library/4.2’

(as ‘lib’ is unspecified)

trying URL 'http://rspm/default/\_\_linux\_\_/focal/latest/src/contrib/lubridate\_1.8.0.tar.gz'

Content type 'application/x-gzip' length 1809209 bytes (1.7 MB)

==================================================

downloaded 1.7 MB

\* installing \*binary\* package ‘lubridate’ ...

\* DONE (lubridate)

The downloaded source packages are in

‘/tmp/Rtmpal1lL6/downloaded\_packages’

> library("lubridate")

Attaching package: ‘lubridate’

The following objects are masked from ‘package:base’:

date, intersect, setdiff, union

* Maps (no problems):

Maps: > install.packages("maps")

Installing package into ‘/cloud/lib/x86\_64-pc-linux-gnu-library/4.2’

(as ‘lib’ is unspecified)

trying URL 'http://rspm/default/\_\_linux\_\_/focal/latest/src/contrib/maps\_3.4.0.tar.gz'

Content type 'application/x-gzip' length 3126333 bytes (3.0 MB)

==================================================

downloaded 3.0 MB

\* installing \*binary\* package ‘maps’ ...

\* DONE (maps)

The downloaded source packages are in

‘/tmp/Rtmpal1lL6/downloaded\_packages’

> install.packages("maps")

Installing package into ‘/cloud/lib/x86\_64-pc-linux-gnu-library/4.2’

(as ‘lib’ is unspecified)

trying URL 'http://rspm/default/\_\_linux\_\_/focal/latest/src/contrib/maps\_3.4.0.tar.gz'

Content type 'application/x-gzip' length 3126333 bytes (3.0 MB)

==================================================

downloaded 3.0 MB

\* installing \*binary\* package ‘maps’ ...

\* DONE (maps)

The downloaded source packages are in

‘/tmp/Rtmpal1lL6/downloaded\_packages’

> library("maps")

3: Discuss the similarities and/or differences of the R and RStudio installation process compared to any other tool that you used before.

* Downloading SQL software and using SQL in MSSMS reminds me of this process of downloading R. We need the primary software first installed in our PC. Then we need a way to use and communicate with this software with a management studio so we can visually see what we are doing.

4: List a package that you think you would need for a potential final project but that it is not available in the RStudio packages list anymore/not yet.

* sqldf seems like a very useful R package to help from switching from different software
* <https://www.rdocumentation.org/packages/sqldf/versions/0.4-11>
* The packages allow R to run SQL statement on R data frames, which is extremely convenient because you don’t have to switch from RStudio to a SSMS to write statements