**BIOL 190041Coding assessment 1 (Total: 20%)**

The goal of this assessment is to capture what you have been learning in the lectures and workshops. The idea is then to have your notes from the lecture and deliver the new coding techniques to your actual project data. The R folder with your project, .qmd file (i.e. Quartro document), and project data should be set up to run on your **DESKTOP**. The file and your project should be named: ‘STUDENT\_FIRST\_LAST\_NAME\_STUDENT#’. So for me my file structure would look like:



What you will need in this folder is an R project, a Quarto document, a Word document that renders from the Quarto file, and a data folder that contains your project data. The file (e.g Kristoffer\_Wild\_S007341) that contains all of these documents should be zipped and turned in on CANVAS. You will be graded on the following

Your Quarto document will contain the following ‘main headers’ THIS ORDER:

1. **Libraries (2%)**: Importing the appropriate libraries needed for the data cleanup. For example:

Library(NichemapR) # package used for biophysical modelling

Library(lubridate) # package used for cleaning up dates and times

1. **Lecture notes (XX%)**: Here you will identify 10 functions covered in the lectures 2-4, with an example of their use. Note this is not with your project data. In the Quarto document, ABOVE the code chunk of your example, you will document what the function is doing and how it works. Be sure each example is clearly numbered. Here is how this section would look:

A screenshot of a computer

Description automatically generated

1. **Project cleaning and test protocol (XX%):** A total of 5 dplyr functions or other functions you used to clean your data. In a complete sentence above the code chunk, you should describe:
   1. What was wrong with the data
   2. What function(s) and the description of the function(s)
   3. A summary from start to finish of what the code chunk does for your dataset.
2. **File formatting and how it is saved (XX%):** We are looking for you to correctly set up your project structure using the structure covered in class and the example above. Your project should be able to run on anyone’s desktop, i.e. I can unzip the file, open your project, open the Quarto document, and it should render into a Word document. Go through the following checklist
   1. Is the file and project name correct?
   2. Is the file saved as a zipped document?
   3. Are the data in the right folder?
   4. Do the paths point to the data?
   5. Does it render into a Word document?
   6. Do you have the correct headings: **1) Libraries; 2) Lecture notes; 3) Cleaning protocol**
   7. Do the outputs for the code chunks show the loaded libraries, functions you’re explaining and your project cleaning examples when the file is rendered to a Word document?
3. **Spelling, grammar, and English expression are being used correctly (XX%)**