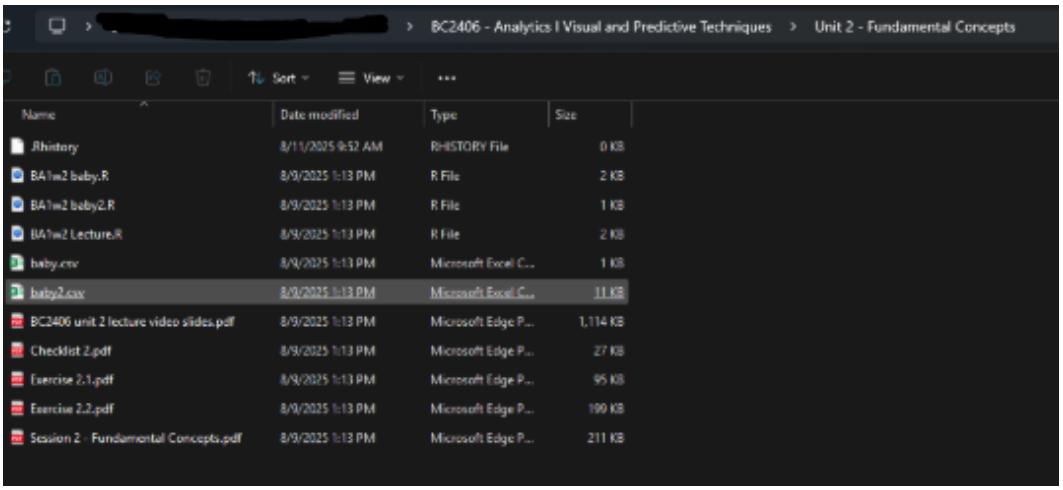
Introduction to RStudio Usage

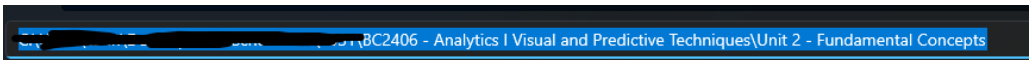
1. Check and Set Your Working Directory in R

This was a very confusing part of RStudio for me when I first started since there are a lot of different ways to go about working directories. In our case here, what I will show is what worked for me in particular, so if you are not very comfortable with it, feel free to follow the professor's method.

- There will always be one working directory (WD) during any R session.
- Your WD will be the path where you get your spreadsheets, R scripts or any dataset for that matter.
- To check what is your current WD, type **getwd()** at your R console.
- If you are using Windows, your WD is probably defaulted to your documents folder. Unless you are okay with that, let's try to change that to the Unit 2 folder of this course for this showcase:
    - Type **setwd("your path address here")**
    - Unless you are very familiar with your paths, there is another way to do this. Simply open the Unit 2 folder like so:



    - Copy the top address bar, that's your path name:



    - Paste it into the brackets of **setwd()**
    - Change all the forward slashes " \ " to backslashes " / ". Don't forget the quotation sign.
    - Finally you should have something like this:
        - **setwd("C:/Users/name/Desktop/…")**
        - Check with **getwd()** just in case

2. Getting Data into RStudio

- The reason we change our WD to Unit 2 is to test this section
- But first, let's get familiar with the *Assignment Operator* <-

2.1: Assignment Operator

- As the name suggests, the assignment operator assigns a value to a name/object

```
x <- value
x <<- value
value -> x
value ->> x
```

- "**x**" is your variable name and "**value**" is the value you want to assign to the "**x**"
- Type "**age <- 22**"
- You should see the code pop up in both the console and the environment panel
- What if you want to assign the same value to different variable names?
- Type "**age1 <- age2 <- age3 <- 22**"

- The assignment also works for an operation. For example: "**sum <- 3+4**"
- Type "**sum**" to see the sum. This works for every other mathematical operation, "+", "-", "x", "/" and so on.

2.2: Naming Convention

- Like any other programming language that you are familiar with, R also has its own naming convention:
  - **john_doe**
  - **johnDoe**
  - **john.doe**

2.3: Vectors

- Type "**c()**" with your values inside the brackets to create a vector:
  - **c(1, 2, 3, 4, 5, 6)**
  - **c("john", "david", "mary")**
  - **c(TRUE, FALSE, TRUE)**

2.4: Basic Data Types

- Type "**class()**" with your variable inside the brackets to check what type is your data

- `numeric` - (10.5, 55, 787)
- `integer` - (1L, 55L, 100L, where the letter "L" declares this as an integer)
- `complex` - (9 + 3i, where "i" is the imaginary part)
- `character` (a.k.a. string) - ("k", "R is exciting", "FALSE", "11.5")
- `logical` (a.k.a. boolean) - (TRUE or FALSE)

(source)

- For example:
  - **x <- TRUE**
  - **class(x)**
  - Output should be "*logical*"