Week 7

Data Hack 2022

05/13/2022

1 Create a function that is the quadratic formula, i.e., you input the coefficients of a quadratic function and the code returns the roots.

Something like: If you have the equation $ax^2 + bx + c = 0$, the code will give you:

$\frac{-b + \sqrt{b^2 - 4ac}}{2a}$ and $\frac{-b - \sqrt{b^2 - 4ac}}{2a}$

2 (tricky) Create a function that gives you the n-th fibonnaci number, where $n < 16$

3 (trickier) Create a function that gives you the n-th fibonnaci number.

4 Spend sometime analyzing and understanding the following function:

```
big_import <- function(full_path){
  thenames <- "enrollment_" #Just change this part if you want a different name
  if (typeof(full_path)!="character"){
    print("Wrong, argument needs to be a character")
  }
  else {
    f_listy <- list.files(full_path)
    f_listy2 = paste0(full_path,"/",f_listy)
    f_list_data <- lapply(f_listy2,read_excel)
    f_how_long <- length(f_list_data)
    for (i in 1:f_how_long) {
      assign(paste0(thenames, i+2001), as.data.frame(list_data[[i]]),envir = .GlobalEnv)
    }
  }
}
```