Before you start the lab spend some time getting familiar with the Lab environment as a refresher:

- Open RStudio in your lab platform.

Exercise 1:

Write a function that takes marks, and uses an if-else rule to give grades to the student. The grading system is as follows:

• 90-100: A

• 80-89: B

• 70-79: C

• 60-69: D

• 50-59: E

• 0-49: F

check for the marks: 43, 67, 89, 100, 101, -1, “A”

Exercise 2:

Write a function to check whether a given year is a leap year or not. Check for the year 2000,3000,3024,2024

Hint: A leap year is exactly divisible by 4 except for century years (years ending with 00). The century year is a leap year only if it is perfectly divisible by 400

Exercise 3:

Write a function that can able to handle a vector of years and return a vector of the same length with the result of whether the year is a leap year or not. Check for the years 2000,3000,3024,2024

Exercise 4:

Create a simple calculator in R that takes two numbers and an operator (+, -, *, /) as input and returns the result of the operation.

- 10 / 0

Exercise 5:

Write a function that takes a number as input and returns “Fizz” if the number is divisible by 3, “Buzz” if the number is divisible by 5, “FizzBuzz” if the number is divisible by both 3 and 5, and the number itself if it is not divisible by either 3 or 5. Check for the numbers 3, 5, 15, 7, 8

Exercise 6:

Write a function that takes a number and returns the sum of its digits. Check for the numbers 123, 456, 789

Exercise 7:

Write a function to check whether a given number is prime or not. A prime number is a number that is only divisible by 1 and itself. Check for the numbers 13333, 131, 127, 121.