Programming for Data Science



OPERATIONS ON DATA FRAMES

Introduction

This assignment would help to understand on how to use built-in datasets in R and manipulate them using loops and functions. A dataset named "airquality" is built into the R-studio. It consists of data about daily air quality measurements in New York from May to September 1973. The data set is a data frame with 154 observations on six variables. The problem statement is to find the maximum wind speed for each month on the data set "airquality", and return a new data frame with the computed values. Since the data is collected only from month 5 to month 9, every month will just have one day for maximum wind speed to be calculated.

Objective

Demonstrate the ability to manipulate the data frames.

Self-Assessment Questions

Steps involved:

- a) Create a function "windmax" which takes a data frame as an argument
- b) Create an empty vector "a" to populate it in the following steps
- c) Using the subset function compute the maximum wind speed for each month (month 5 to 9) and assign it to a variable calc_speed
- d) Populate the empty vector "a" with calc_speed using the rbind function
- e) Call the function "windmax" by passing the airquality data frame as an argument