Programming for Data Science



OPERATIONS USING LOOPS

Introduction

This assignment would help in understanding how to manipulate data frames in R using loops. The problem statement is to construct a data frame named "patients", which would consist of three vectors "Patient_id", "Patient_age", and "Patient_sex" with a minimum of 10 data items in each vector. One needs to compute the number of female and male patients in the above dataset. Create another vector named "gender_code", which would store the status as 0 for female and 1 for male. This new vector should be appended as the last column in the existing "patients" vector.

Objective

Understand the application of loops on vectors and data frames.

Self-Assessment Questions

Steps involved:

- a) Create three vectors which consist "Patient_id", "Patient_age", and "Patient_sex" of the patient (10 items each)
- b) Use these vectors to create a data frame called "patients"
- c) Create an empty vector "gender_code" to populate it in the next step
- d) Loop through the items in the data frame. Append and populate the new vector in the looping block
- e) On sex = "F", store 0 in the new vector and if sex = "M" store 1 in the new vector
- f) Compute the count of male and female patients within the loop block
- g) Append this vector to the original data frame "patients"