

TEB2164

Introduction to Data Science

Lab Assignment

30 September 2022

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**Coding**

#QUESTION1

#retrieve weight from user in kilograms

weight <- readline(prompt="Enter weight(kg): ")#step1

weight <- as.numeric(weight)#step2

#retrieve height from user in meters (for example, 1.75)

height <- readline(prompt="Enter height(m): ")#step3

height <- as.numeric(height)#step4

#Calculate BMI

BMI <- (weight)/(height^2)#step5

#Display BMI result

print(paste("BMI:", BMI)) #step6

cat(paste(" Underweight:", BMI<=18.4, "\n",

"Normal:", 18.5<=BMI && BMI<=24.9, "\n",

"Overweight:", 25.0<=BMI && BMI<=39.9, "\n",

"Obesity:", 40.0<=BMI)) #step7

#QUESTION2

#retrieve string 1 from user

str1 <- readline(prompt="Enter string 1: ") #step1

x <- format(str1) #Changing the case to upper # step2

x1 <- toupper(str1) #Changing the case to upper # step3

#retrieve string 2 from user

str2 <- readline(prompt="Enter string 2: ") #step4

y <- format(str2) #Changing the case to upper #step5

y1 <- toupper(str2) #Changing the case to upper # step6

cat(paste("This program compare 2 strings. Both input are similar:", x1==y1)) #step7

#QUESTION3

#retrieve name

x <- readline(prompt="Enter name: ")#step1

name <- toupper(x)#step2

#retrieve phone number

y <- readline(prompt="Enter phone number: ")#step3

pnum1 <- substr(y, 1, 3) # Extract characters from 1st to 3rd position.#step4

pnum2 <- substr(y, 7, 10)# Extract characters from 7th to 10th position.#step5

#Display result

cat("Hi,",name,". A verification code has been sent to ", pnum1,"-xxx",pnum2) #step6

**Screenshots**

QUESTION 1

Coding:

Text

Description automatically generated

Output:

Text, letter

Description automatically generated

QUESTION 2

Coding:

Text

Description automatically generated

Output 1:

Text

Description automatically generated

Output 2:

Text

Description automatically generated

Output 3:

Text

Description automatically generated

QUESTION 3

Coding:

Text

Description automatically generated

Output:

Graphical user interface, text

Description automatically generated