Question-7.R

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# Load the required packages  
library("tidyverse")

## ── Attaching packages ─────────────────────────────────────── tidyverse 1.3.2 ──  
## ✔ ggplot2 3.4.0 ✔ purrr 0.3.4   
## ✔ tibble 3.1.8 ✔ dplyr 1.0.10  
## ✔ tidyr 1.2.1 ✔ stringr 1.5.0   
## ✔ readr 2.1.4 ✔ forcats 0.5.2   
## ── Conflicts ────────────────────────────────────────── tidyverse\_conflicts() ──  
## ✖ dplyr::filter() masks stats::filter()  
## ✖ dplyr::lag() masks stats::lag()

library(rpart.plot)

## Loading required package: rpart

library(readxl)  
library(dplyr)  
library(rpart)  
  
  
# Import the data from the Excel workbook  
EduData <- read\_excel("C:/Users/saiup/Downloads/Decision\_Analysis\_ConEd.xlsx")  
  
# View the first few rows of the data  
head(EduData)

## # A tibble: 6 × 8  
## Age Marriage Income Edu Own Pet City ContinueEdu  
## <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl> <dbl>  
## 1 78 50 64000 1 0 1 1 0  
## 2 64 35 22000 3 1 0 1 0  
## 3 53 25 146000 1 1 1 0 0  
## 4 44 14 83000 1 0 1 0 0  
## 5 61 33 94000 1 1 1 0 0  
## 6 72 45 174000 1 0 1 1 1

# Build the default classification tree  
tree\_model <- rpart(ContinueEdu ~ Age + Marriage + Income + Own + Pet + Edu + City, data = EduData, method = "class")  
  
# Display the tree  
plot(tree\_model)  
text(tree\_model)

