

Week-8: Code-along

NM2207: Computational Media Literacy- Tang Ching Xian

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```
knitr::include_graphics("1.png")
```

Ching's Dataset Statistics Viewer

Choose a dataset:
rock

Number of observations to view:
10

Note: while the data view will show only the specified number of observations, the summary will still be based on the full dataset.

Summary

area	peri	shape	perm
Min. : 1816	Min. : 308.6	Min. : 0.09033	Min. : 6.30
1st Qu.: 5305	1st Qu.: 1414.9	1st Qu.: 0.16226	1st Qu.: 76.45
Median : 7487	Median : 2536.2	Median : 0.19886	Median : 130.50
Mean : 7188	Mean : 2682.2	Mean : 0.21811	Mean : 415.45
3rd Qu.: 8870	3rd Qu.: 3989.5	3rd Qu.: 0.26267	3rd Qu.: 777.50
Max. : 12212	Max. : 4864.2	Max. : 0.46413	Max. : 1500.00

Observations

area	peri	shape	perm
4990	2791.90	0.09	6.30
7002	3892.60	0.15	6.30
7558	3930.06	0.18	6.30
7352	3869.32	0.12	6.30
7943	3948.54	0.12	17.10
7979	4010.15	0.17	17.10
9333	4345.75	0.19	17.10
8209	4344.75	0.16	17.10
8393	3682.04	0.20	119.00
6425	3098.65	0.16	119.00

WEEK8 CODE

```

##
# This is a Shiny web application. You can run the application by clicking
# the 'Run App' button above.
#
# Find out more about building applications with Shiny here:
#
#   http://shiny.rstudio.com/
#

library(shiny)

# Assuming you have a dataset named 'your_dataset' (replace with your actual dataset)
your_dataset <- mtcars

# Define UI for dataset viewer app ----
ui <- fluidPage(

  # App title ----
  titlePanel("Ching's Dataset Statistics Viewer"),

  # Sidebar layout with input and output definitions ----
  sidebarLayout(

    # Sidebar panel for inputs ----
    sidebarPanel(

      # Input: Select a dataset ----
      selectInput("dataset", "Choose a dataset:",
                  choices = c("rock", "pressure", "cars")),

      # Input: Specify the number of observations to view ----
      numericInput("obs", "Number of observations to view:", 10),

      # Include clarifying text ----
      helpText("Note: while the data view will show only the specified",
               "number of observations, the summary will still be based",
               "on the full dataset.")
    ),

    # Main panel for displaying outputs ----
    mainPanel(

      # Output: Header + summary of distribution ----
      h4("Summary"),
      verbatimTextOutput("summary"),

      # Output: Header + table of distribution ----
      h4("Observations"),
      tableOutput("view")
    )
  )
)

# Define server logic to summarize and view selected dataset ----

```

```

server <- function(input, output) {

  # Reactive function to get the selected dataset
  datasetInput <- reactive({
    switch(input$dataset,
           "rock" = rock,
           "pressure" = pressure,
           "cars" = cars)
  })

  # Generate a summary of the dataset ----
  output$summary <- renderPrint({
    dataset <- datasetInput()
    summary(dataset)
  })

  # Show the first "n" observations ----
  output$view <- renderTable({
    head(datasetInput(), n = input$obs)
  })
}

# Create Shiny app ----
shinyApp(ui, server)

```

Ching's Dataset Statistics Viewer

Choose a dataset:

rock

Number of observations to view:

10

Note: while the data view will show only the specified number of observations, the summary will still be based on the full dataset.

Summary

area	peri	shape	perm
Min. : 1016	Min. : 308.6	Min. : 0.09033	Min. : 6.30