Sri Lanka Institute of Information Technology

Lab Submission
Lab Sheet 07

IT24103902

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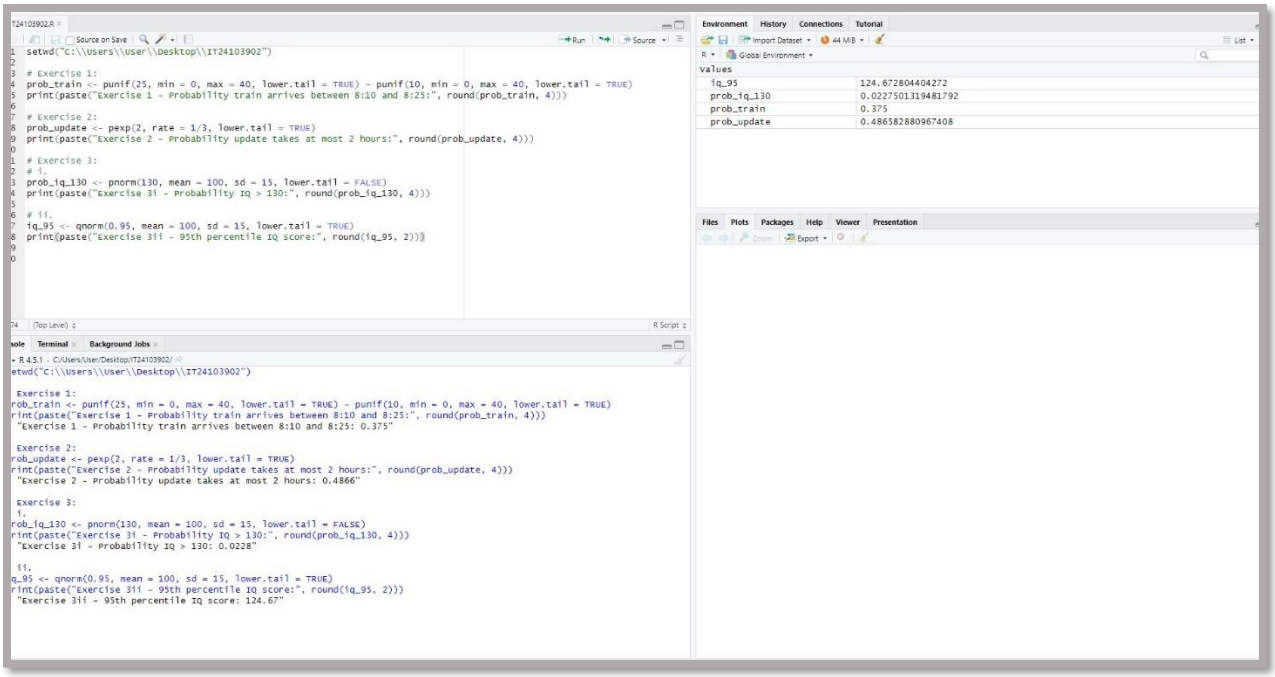
Artificial Intelligence and Machine Learning
IT2011

B.Sc. (Hons) in Information Technology


T24103902.R
Source on Save
Run
Source
setwd("C:\\Users\\User\\Desktop\\IT24103902")
# Exercise 1:
prob_train <- punif(25, min = 0, max = 40, lower.tail = TRUE) - punif(10, min = 0, max = 40, lower.tail = TRUE)
print(paste("Exercise 1 - Probability train arrives between 8:10 and 8:25:", round(prob_train, 4)))
# Exercise 2:
prob_update <- pexp(2, rate = 1/3, lower.tail = TRUE)
print(paste("Exercise 2 - Probability update takes at most 2 hours:", round(prob_update, 4)))
# Exercise 3:
# i.
prob_iq_130 <- pnorm(130, mean = 100, sd = 15, lower.tail = FALSE)
print(paste("Exercise 3i - Probability IQ > 130:", round(prob_iq_130, 4)))
# ii.
iq_95 <- qnorm(0.95, mean = 100, sd = 15, lower.tail = TRUE)
print(paste("Exercise 3ii - 95th percentile IQ score:", round(iq_95, 2)))
(Top Level)
R Script
Terminal
Background Jobs
R 4.5.1 · C:/Users/User/Desktop/IT24103902/
setwd("C:\\Users\\User\\Desktop\\IT24103902")
Exercise 1:
prob_train <- punif(25, min = 0, max = 40, lower.tail = TRUE) - punif(10, min = 0, max = 40, lower.tail = TRUE)
print(paste("Exercise 1 - Probability train arrives between 8:10 and 8:25:", round(prob_train, 4)))
"Exercise 1 - Probability train arrives between 8:10 and 8:25: 0.375"
Exercise 2:
prob_update <- pexp(2, rate = 1/3, lower.tail = TRUE)
print(paste("Exercise 2 - Probability update takes at most 2 hours:", round(prob_update, 4)))
"Exercise 2 - Probability update takes at most 2 hours: 0.4866"
Exercise 3:
i.
prob_iq_130 <- pnorm(130, mean = 100, sd = 15, lower.tail = FALSE)
print(paste("Exercise 3i - Probability IQ > 130:", round(prob_iq_130, 4)))
"Exercise 3i - Probability IQ > 130: 0.0228"
ii.
iq_95 <- qnorm(0.95, mean = 100, sd = 15, lower.tail = TRUE)
print(paste("Exercise 3ii - 95th percentile IQ score:", round(iq_95, 2)))
"Exercise 3ii - 95th percentile IQ score: 124.67"
Environment
History
Connections
Tutorial
Import Dataset
44 MiB
List
R
Global Environment
Values
iq_95 124.672804404272
prob_iq_130 0.0227501319481792
prob_train 0.375
prob_update 0.486582880967408
Files
Plots
Packages
Help
Viewer
Presentation
Export