Sri Lanka Institute of Information Technology

Lab Submission
Worksheet No 07

IT24103858

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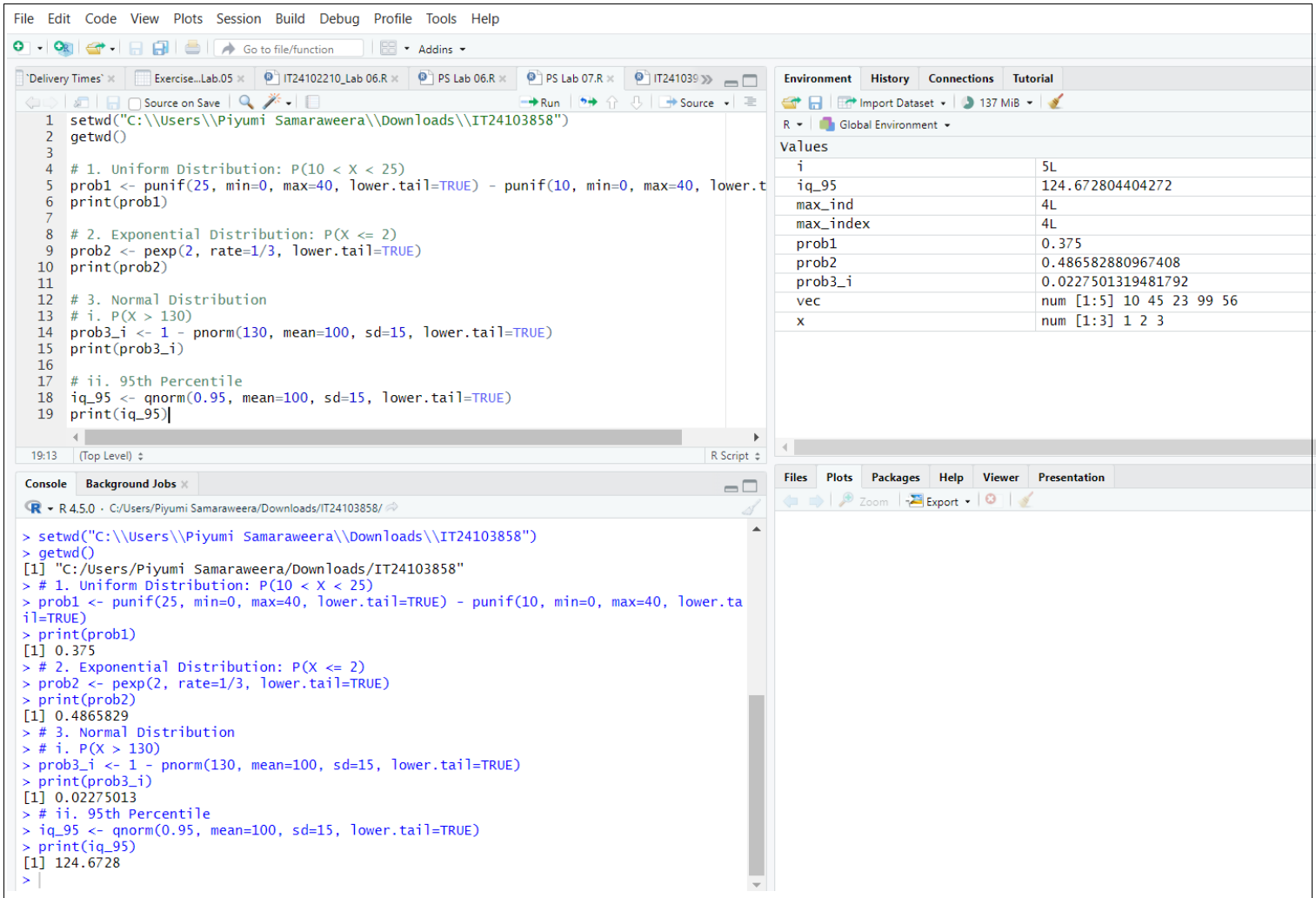
B.Sc. (Hons) in Information Technology


File Edit Code View Plots Session Build Debug Profile Tools Help
Go to file/function
Addins
`Delivery Times`
Exercise...Lab.05
IT24102210_Lab 06.R
PS Lab 06.R
PS Lab 07.R
IT241039
Source on Save
Run
Source
1 setwd("C:\\Users\\Piyumi Samaraweera\\Downloads\\IT24103858")
2 getwd()
3
4 # 1. Uniform Distribution: P(10 < X < 25)
5 prob1 <- punif(25, min=0, max=40, lower.tail=TRUE) - punif(10, min=0, max=40, lower.t
6 print(prob1)
7
8 # 2. Exponential Distribution: P(X <= 2)
9 prob2 <- pexp(2, rate=1/3, lower.tail=TRUE)
10 print(prob2)
11
12 # 3. Normal Distribution
13 # i. P(X > 130)
14 prob3_i <- 1 - pnorm(130, mean=100, sd=15, lower.tail=TRUE)
15 print(prob3_i)
16
17 # ii. 95th Percentile
18 iq_95 <- qnorm(0.95, mean=100, sd=15, lower.tail=TRUE)
19 print(iq_95)
19:13
(Top Level)
R Script
Environment
History
Connections
Tutorial
Import Dataset
137 MiB
R
Global Environment
Values
i 5L
iq_95 124.672804404272
max_ind 4L
max_index 4L
prob1 0.375
prob2 0.486582880967408
prob3_i 0.0227501319481792
vec num [1:5] 10 45 23 99 56
x num [1:3] 1 2 3
Console
Background Jobs
R 4.5.0 · C:/Users/Piyumi Samaraweera/Downloads/IT24103858/
> setwd("C:\\Users\\Piyumi Samaraweera\\Downloads\\IT24103858")
> getwd()
[1] "C:/Users/Piyumi Samaraweera/Downloads/IT24103858"
> # 1. Uniform Distribution: P(10 < X < 25)
> prob1 <- punif(25, min=0, max=40, lower.tail=TRUE) - punif(10, min=0, max=40, lower.ta
il=TRUE)
> print(prob1)
[1] 0.375
> # 2. Exponential Distribution: P(X <= 2)
> prob2 <- pexp(2, rate=1/3, lower.tail=TRUE)
> print(prob2)
[1] 0.4865829
> # 3. Normal Distribution
> # i. P(X > 130)
> prob3_i <- 1 - pnorm(130, mean=100, sd=15, lower.tail=TRUE)
> print(prob3_i)
[1] 0.02275013
> # ii. 95th Percentile
> iq_95 <- qnorm(0.95, mean=100, sd=15, lower.tail=TRUE)
> print(iq_95)
[1] 124.6728
>
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