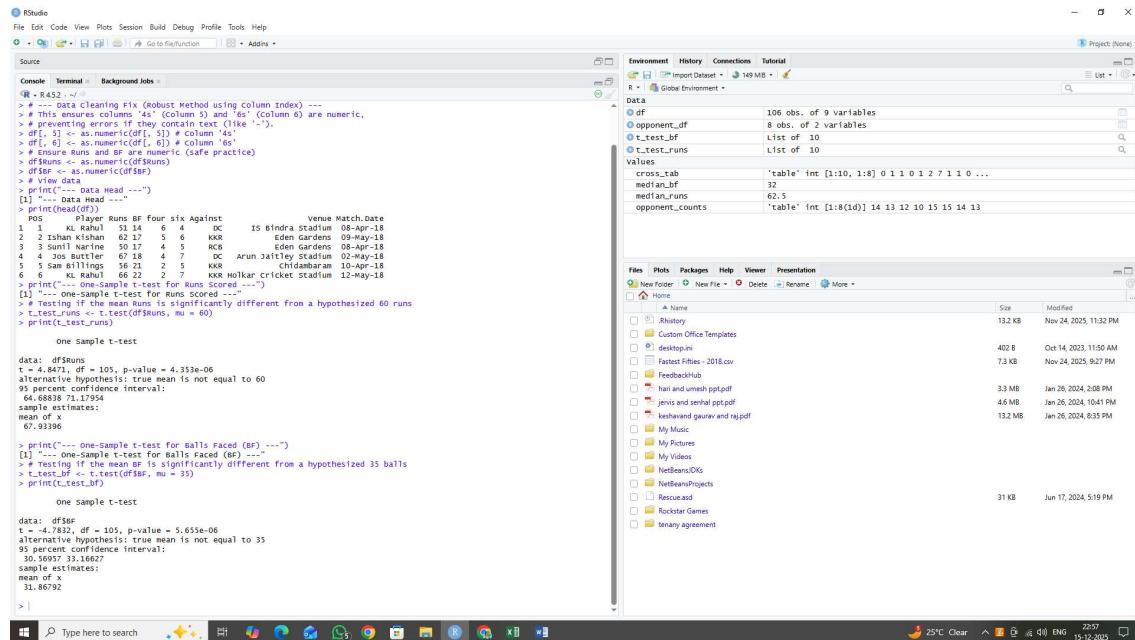


MVLU COLLEGE
R PRACTICAL 4 MODULE 2

Aim: -Performing one-sample t-tests using t.test() (R).



The screenshot shows an RStudio interface with the following details:

- Console:** Displays R code and its execution results. The code includes data cleaning, setting column types, and performing one-sample t-tests for runs scored and balls faced.
- Environment:** Shows the global environment with objects like `df`, `opponent_df`, `t.test_bf`, `t.test_runs`, `values`, `cross_tab`, `median_bf`, `median_runs`, and `opponent_counts`.
- Plots:** No plots are present in this screenshot.
- Files:** Shows a file tree with various files like `Adhistery`, `Desktop`, `FeedbackHub`, `Java`, `My Music`, `My Videos`, `NetBeans`, `Rockstar Games`, and `Senayn agreement`.
- Session Info:** Shows the session information including the operating system (Windows 10), R version (4.2.2), and other details.

```

# --- Data Cleaning Fix (Robust Method using column index) ---
# This ensures columns '4s' (column 5) and '6s' (column 6) are numeric,
# preventing errors if they contain text (like '-')
df[, 5] <- as.numeric(df[, 5]) # column '4s'
df[, 6] <- as.numeric(df[, 6]) # column '6s'
# Ensure runs and BF are numeric (safe practice)
df$runs <- as.numeric(df$runs)
df$bf <- as.numeric(df$bf)

# View data
print(head(data))
# [1] "---- Data Head ----"
# [1] "POS Player Runs BF four six Against Venue Match.Date"
# [1] 1 Kl Rahul 51 14 6 4 DC IS Bindra Stadium 08-Apr-18
# [2] 2 Ishant Sharma 62 14 5 6 KKR Eden Gardens 08-May-18
# [3] 3 Sunil Narine 17 4 3 KKR Eden Gardens 08-May-18
# [4] 4 Jon Buttler 67 18 4 7 DC Arun Jaitley Stadium 02-May-18
# [5] 5 Sam Billings 22 2 2 KKR Chidambaram 10-Apr-18
# [6] 6 KL Rahul 66 22 2 2 KKR Holkar Cricket Stadium 12-May-18
> print("---- One-Sample t-test for runs scored ----")
[1] "One-Sample t-test for runs scored ..."
# Testing if the mean runs is significantly different from a hypothesized 60 runs
> t.test_runs <- t.test(runs, mu = 60)
> print(t.test_runs)
One Sample t-test

data: df$runs
t = 4.8471, df = 105, p-value = 4.333e-06
alternative hypothesis: true mean is not equal to 60
95 percent confidence interval:
64.68838 71.17954
sample estimates:
mean of x
67.93398

> print("---- One-Sample t-test for balls Faced (BF) ----")
[1] "One-Sample t-test for balls Faced (BF) ..."
# Testing if the mean BF is significantly different from a hypothesized 35 balls
> t.test_bf <- t.test(bf, mu = 35)
> print(t.test_bf)
One Sample t-test

data: df$bf
t = -4.7821, df = 105, p-value = 5.655e-06
alternative hypothesis: true mean is not equal to 35
95 percent confidence interval:
30.38753 35.13177
sample estimates:
mean of x
31.86792

```