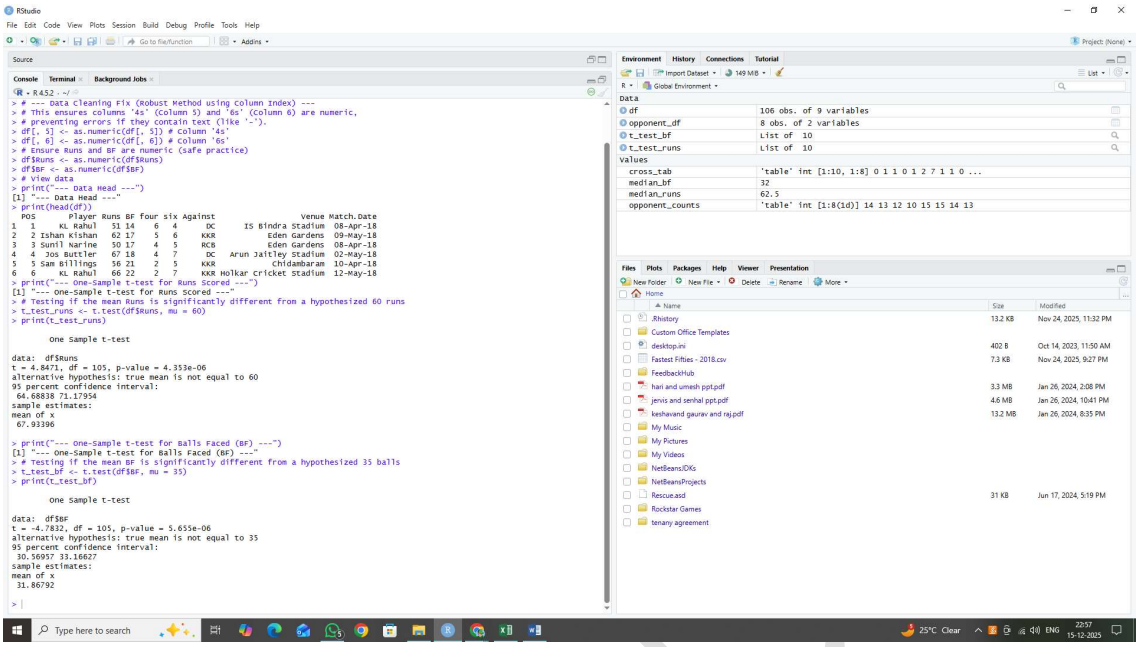
MVLU COLLEGE
R PRACTICAL 4 MODULE 2

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



```
> # --- 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("--- Data Head ---")
[1] "--- Data Head ---"
> print(head(df))
  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 Ishan Kishan   62 17    5   6     KKR           Eden Gardens  09-May-18
3   3 Sunil Narine   50 17    4   5     RCB           Eden Gardens  08-Apr-18
4   4  Jos Buttler   67 18    4   7      DC   Arun Jaitley Stadium  02-May-18
5   5 Sam Billings   56 21    2   5     KKR            Chidambaram  10-Apr-18
6   6     KL Rahul   66 22    2   7     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(df$Runs, mu = 60)
> print(t_test_runs)

        One Sample t-test

data:  df$Runs
t = 4.8471, df = 105, p-value = 4.353e-06
alternative hypothesis: true mean is not equal to 60
95 percent confidence interval:
 64.68838 71.17954
sample estimates:
mean of x
 67.93396

> 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(df$BF, mu = 35)
> print(t_test_bf)

        One Sample t-test

data:  df$BF
t = -4.7832, df = 105, p-value = 5.655e-06
alternative hypothesis: true mean is not equal to 35
95 percent confidence interval:
 30.56957 33.16627
sample estimates:
mean of x
 31.86792

>
```



Hariprasad Vishwakarma
S126
SYCS