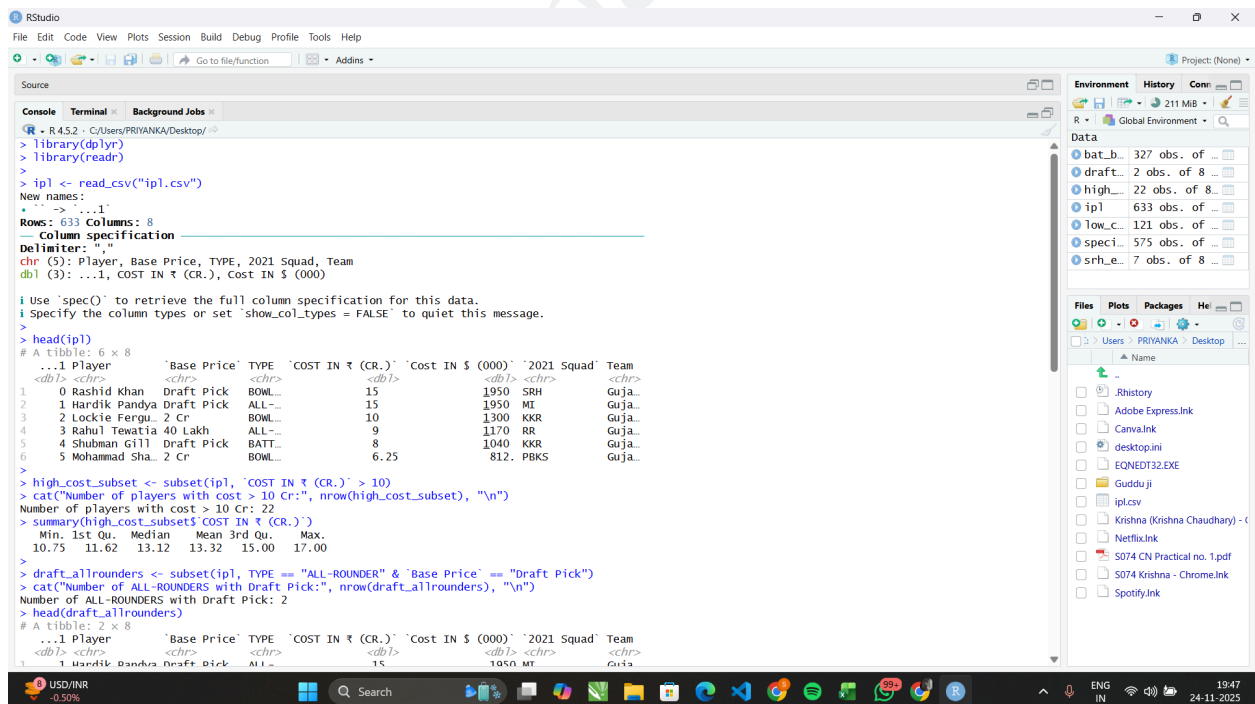


SHETH L.U.J AND SIR M.V. COLLEGE
SUBJECT NAME: DATA ANALYSIS WITH SAS/SPSS/R

Module 1 Practical 4

Aim: Applying conditional filters subset() or filter() in R.

OUTPUT:



```
R - R 4.5.2 - C:/Users/PRINYANKA/Desktop/
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Go to file/function Addins
Source
Console Terminal Background Jobs
R - R 4.5.2 - C:/Users/PRINYANKA/Desktop/
> library(dplyr)
> library(readr)
>
> ipl <- read_csv("ipl.csv")
New names:
  > > ...1
Rows: 633 Columns: 8
Column specification
Delimiter: ","
chr (5): Player, Base Price, TYPE, 2021 Squad, Team
dbl (3): ...1, COST IN ₹ (CR.), Cost IN $ (000)

i Use 'spec()' to retrieve the full column specification for this data.
i Specify the column types or set 'show_col_types = FALSE' to quiet this message.
>
> head(ipl)
# A tibble: 6 x 8
  ...1 Player      'Base Price' TYPE 'COST IN ₹ (CR.)' 'Cost IN $ (000)' '2021 Squad' Team
  <dbl> <chr>      <chr>      <chr>      <dbl>      <dbl>      <chr>      <chr>
1 0 Rashid Khan Draft Pick BOWL... 15 1950 SRH Guja...
2 1 Hardik Pandya Draft Pick ALL-... 15 1950 MI Guja...
3 2 Lockie Fergus... 2 Cr BOWL... 10 1300 KKR Guja...
4 3 Rahul Tewatia 40 Lakh ALL-... 9 1170 RR Guja...
5 4 Shubman Gill Draft Pick BATT... 8 1040 KKR Guja...
6 5 Mohammad Sha... 2 Cr BOWL... 6.25 812. PBKS Guja...

>
> high_cost_subset <- subset(ipl, 'COST IN ₹ (CR.)' > 10)
> cat("Number of players with cost > 10 Cr:", nrow(high_cost_subset), "\n")
Number of players with cost > 10 Cr: 22
> summary(high_cost_subset$'COST IN ₹ (CR.)')
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
10.75  11.62  13.12  13.32  15.00  17.00
>
> draft_allrounders <- subset(ipl, TYPE == "ALL-ROUNDER" & 'Base Price' == "Draft Pick")
> cat("Number of ALL-ROUNDERS with Draft Pick:", nrow(draft_allrounders), "\n")
Number of ALL-ROUNDERS with Draft Pick: 2
> head(draft_allrounders)
# A tibble: 2 x 8
  ...1 Player      'Base Price' TYPE 'COST IN ₹ (CR.)' 'Cost IN $ (000)' '2021 Squad' Team
  <dbl> <chr>      <chr>      <chr>      <dbl>      <dbl>      <chr>      <chr>
1 1 Hardik Pandya Draft Pick ALL-... 15 1950 MI Guja...
```

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```
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Source
Console Terminal Background Jobs
R - R 4.5.2 - C:/Users/PRIVANKA/Desktop/
...1 Player      Base Price TYPE  'COST IN ₹ (CR.)' 'Cost IN $ (000)' '2021 Squad' Team
<dbl> <chr>      <chr>      <dbl>      <dbl>      <chr>      <chr>
1 1 Hardik Pandya Draft Pick ALL-- 15      1950 MI      Guja..
2 123 Marcus Stoia Draft Pick ALL-- 9.2     1196 DC      Luck..
> special_players <- subset(
+   ipl,
+   grep("lakh", tolower('Base Price')) | 'Cost IN $ (000)' > 300
+ )
> cat("Special players (Lakh OR $ > 300K):", nrow(special_players), "\n")
Special players (Lakh OR $ > 300K): 575
> head(special_players)
# A tibble: 6 x 8
...1 Player      Base Price TYPE  'COST IN ₹ (CR.)' 'Cost IN $ (000)' '2021 Squad' Team
<dbl> <chr>      <chr>      <dbl>      <dbl>      <chr>      <chr>
1 0 Rashid Khan Draft Pick BOWL-- 15      1950 SRH      Guja..
2 1 Hardik Pandya Draft Pick ALL-- 15      1950 MI      Guja..
3 2 Lockie Fergus 2 Cr BOWL-- 10      1300 KKR      Guja..
4 3 Rahul Tewatia 40 Lakh ALL-- 9        1170 RR       Guja..
5 4 Shubman Gill Draft Pick BATT-- 8        1040 KKR      Guja..
6 5 Mohammad Sha 2 Cr BOWL-- 6.25    812. PBKS    Guja..
>
> low_cost_filter <- ipl %>%
+   filter('COST IN ₹ (CR.)' < 2)
> cat("Players with cost < 2 Cr:", nrow(low_cost_filter), "\n")
Players with cost < 2 Cr: 121
> summary(low_cost_filter$'COST IN ₹ (CR.)')
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
0.2000  0.2000  0.4000  0.5682  0.7500  1.9000
>
> srh_expensive <- ipl %>%
+   filter('2021 Squad' == "SRH", 'COST IN ₹ (CR.)' > 5)
> cat("SRH players with cost > 5 Cr:", nrow(srh_expensive), "\n")
SRH players with cost > 5 Cr: 7
> head(srh_expensive)
# A tibble: 6 x 8
...1 Player      Base Price TYPE  'COST IN ₹ (CR.)' 'Cost IN $ (000)' '2021 Squad' Team
<dbl> <chr>      <chr>      <dbl>      <dbl>      <chr>      <chr>
1 0 Rashid Khan Draft Pick BOWL-- 15      1950 SRH      Guja..
2 53 David Warner 2 Cr BATT-- 6.25    812. SRH      Delh..
>
USD/INR -0.50%
```

```
RStudio
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Console Terminal Background Jobs
R - R 4.5.2 - C:/Users/PRIVANKA/Desktop/
<dbl> <chr>      <chr>      <dbl>      <dbl>      <chr>      <chr>
1 0 Rashid Khan Draft Pick BOWL-- 15      1950 SRH      Guja..
2 1 Hardik Pandya Draft Pick ALL-- 15      1950 MI      Guja..
3 2 Lockie Fergus 2 Cr BOWL-- 10      1300 KKR      Guja..
4 3 Rahul Tewatia 40 Lakh ALL-- 9        1170 RR       Guja..
5 4 Shubman Gill Draft Pick BATT-- 8        1040 KKR      Guja..
6 5 Mohammad Sha 2 Cr BOWL-- 6.25    812. PBKS    Guja..
>
> low_cost_filter <- ipl %>%
+   filter('COST IN ₹ (CR.)' < 2)
> cat("Players with cost < 2 Cr:", nrow(low_cost_filter), "\n")
Players with cost < 2 Cr: 121
> summary(low_cost_filter$'COST IN ₹ (CR.)')
   Min. 1st Qu.  Median    Mean 3rd Qu.    Max.
0.2000  0.2000  0.4000  0.5682  0.7500  1.9000
>
> srh_expensive <- ipl %>%
+   filter('2021 Squad' == "SRH", 'COST IN ₹ (CR.)' > 5)
> cat("SRH players with cost > 5 Cr:", nrow(srh_expensive), "\n")
SRH players with cost > 5 Cr: 7
> head(srh_expensive)
# A tibble: 6 x 8
...1 Player      Base Price TYPE  'COST IN ₹ (CR.)' 'Cost IN $ (000)' '2021 Squad' Team
<dbl> <chr>      <chr>      <dbl>      <dbl>      <chr>      <chr>
1 0 Rashid Khan Draft Pick BOWL-- 15      1950 SRH      Guja..
2 53 David Warner 2 Cr BATT-- 6.25    812. SRH      Delh..
3 54 Syed Khaleel 50 Lakh BOWL-- 5.25    682. SRH      Delh..
4 101 Jonny Bairst 1.5 Cr WICK-- 6.75    878. SRH      Punj..
5 124 Jason Holder 1.5 Cr ALL-- 8.75    1138. SRH      Luck..
6 214 Kane William Retained BATT-- 14      1820 SRH      Sunr..
>
> bat_bowl_filter <- ipl %>%
+   filter(TYPE %in% c("BATTER", "BOWLER"))
> cat("BATTER or BOWLER count:", nrow(bat_bowl_filter), "\n")
BATTER or BOWLER count: 327
> table(bat_bowl_filter$TYPE)
BATTER BOWLER
112    215
>
USD/INR -0.50%
```