

## SHETH L.U.J AND SIR M.V COLLEGE

## Aim:4 Applying conditional filters subset() or filter() in R.

# SHETH L.U.J AND SIR M.V COLLEGE

RStudio

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Console Terminal Background Jobs

```

R - R 4.5.2 - ~/r
> # P1_S120.R
> # Invoice ID Branch City `Customer type` Gender `Product line` `Unit price` Quantity `Tax %` 
> # <dbl> <chr> <chr> <chr> <dbl> <dbl>
1 315-22-5665 C Nayp. Normal Female Home and life... 73.6 10 36.8
2 829-34-3910 A Yang. Normal Female Health and be... 71.4 10 35.7
3 149-71-6266 B Mand. Member Male Sports and tr... 78.1 9 35.1
4 640-49-2076 B Mand. Normal Male Electronic ac... 83.8 8 33.5
5 272-65-1806 A Yang. Normal Female Electronic ac... 60.9 9 27.4
6 228-96-1411 C Nayp. Member Female Food and beve... 98.7 8 39.5
# i 8 more variables: Total <dbl>, Date <chr>, Time <time>, Payment <chr>, cogs <dbl>,
# gross margin percentage <dbl>, gross income <dbl>, Rating <dbl>
>
> special_sales <- subset(sales, Payment == "Credit card" | Rating > 8)
>
> cat("Special sales (Credit card OR Rating > 8):", nrow(special_sales), "\n")
Special sales (Credit card OR Rating > 8): 516
> head(special_sales)
# A tibble: 6 × 17
  `Invoice ID` Branch City `Customer type` Gender `Product line` `Unit price` Quantity `Tax %` 
  <dbl> <chr> <chr> <chr> <chr> <dbl> <dbl>
1 750-67-8428 A Yang. Member Female Health and be... 74.7 7 26.1
2 226-31-3081 C Nayp. Normal Female Electronic ac... 15.3 5 3.82
3 631-41-3108 A Yang. Normal Male Home and life... 46.3 7 16.2
4 123-19-1176 A Yang. Member Male Health and be... 58.2 8 23.3
5 665-32-9167 A Yang. Member Female Health and be... 36.3 2 3.63
6 692-92-5582 B Mand. Member Female Food and beve... 54.8 3 8.23
# i 8 more variables: Total <dbl>, Date <chr>, Time <time>, Payment <chr>, cogs <dbl>,
# gross margin percentage <dbl>, gross income <dbl>, Rating <dbl>
>
> low_price_filter <- sales[<]
+ filter(`unit price` < 50)
>
> cat("Number of low-price items (< 50):", nrow(low_price_filter), "\n")
Number of low-price items (< 50): 439
> summary(low_price_filters`unit price`)
   Min.  1st Qu. Median  Mean 3rd Qu.  Max.
10.08 20.57 29.22 29.92 39.75 49.92
>
> female_high_quantity <- sales[<]
+ filter(Gender == "Female", Quantity > 5)
>
> cat("Female customers with quantity > 5:", nrow(female_high_quantity), "\n")
Female customers with quantity > 5: 260
> head(female_high_quantity)
# A tibble: 6 × 17
  `Invoice ID` Branch City `Customer type` Gender `Product line` `Unit price` Quantity `Tax %` 
  <dbl> <chr> <chr> <chr> <chr> <dbl> <dbl>
1 750-67-8428 A Yang. Member Female Health and be... 74.7 7 26.1
2 355-53-5943 A Yang. Member Female Electronic ac... 68.8 6 20.7
3 315-22-5665 C Nayp. Normal Female Home and life... 73.6 10 36.8
4 829-34-3910 A Yang. Normal Female Health and be... 71.4 10 35.7
5 299-46-1805 B Mand. Member Female Sports and tr... 93.7 6 28.1
6 656-95-9349 A Yang. Member Female Health and be... 68.9 7 24.1
# i 8 more variables: Total <dbl>, Date <chr>, Time <time>, Payment <chr>, cogs <dbl>,
# gross margin percentage <dbl>, gross income <dbl>, Rating <dbl>
>
> member_or_normal <- sales[<]
+ filter(`Customer type` %in% c("Member", "Normal"))
>
> cat("Total customers (Member or Normal):", nrow(member_or_normal), "\n")
Total customers (Member or Normal): 1000
> table(member_or_normal$Customer type)

Member Normal
501 499
> 
```

Environment History Connections Tutorial

Import Dataset 179 MB Project: (None)

animal 7 obs. of 1 variable  
creditcard 284807 obs. of 31 variables  
female\_high\_quantity 260 obs. of 17 variables  
high\_total\_high\_qty 158 obs. of 17 variables  
high\_total\_subset 227 obs. of 17 variables  
low\_price\_filter 439 obs. of 17 variables  
member\_or\_normal 1000 obs. of 17 variables  
sales 1000 obs. of 17 variables  
special\_sales 516 obs. of 17 variables

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C:\Users\yukta\R\_Prog\_S120

animal.xlsx 9.6 MB Nov 24, 2025, 12:11 PM  
creditcard.csv 143.8 MB Nov 24, 2025, 11:39 AM  
creditcard.xlsx 118.1 MB Nov 24, 2025, 11:46 AM  
p1\_S120.R 412 B Nov 24, 2025, 12:21 PM  
p1.R 62 B Nov 24, 2025, 11:52 AM  
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```

R - R 4.5.2 - ~/r
> # P2_S120.R
> # Low price filter
> low_price_filter <- sales[<]
+ filter(`unit price` < 50)
>
> cat("Number of low-price items (< 50):", nrow(low_price_filter), "\n")
Number of low-price items (< 50): 439
> summary(low_price_filters`unit price`)
   Min.  1st Qu. Median  Mean 3rd Qu.  Max.
10.08 20.57 29.22 29.92 39.75 49.92
>
> female_high_quantity <- sales[<]
+ filter(Gender == "Female", Quantity > 5)
>
> cat("Female customers with quantity > 5:", nrow(female_high_quantity), "\n")
Female customers with quantity > 5: 260
> head(female_high_quantity)
# A tibble: 6 × 17
  `Invoice ID` Branch City `Customer type` Gender `Product line` `Unit price` Quantity `Tax %` 
  <dbl> <chr> <chr> <chr> <chr> <dbl> <dbl>
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# i 8 more variables: Total <dbl>, Date <chr>, Time <time>, Payment <chr>, cogs <dbl>,
# gross margin percentage <dbl>, gross income <dbl>, Rating <dbl>
>
> member_or_normal <- sales[<]
+ filter(`Customer type` %in% c("Member", "Normal"))
>
> cat("Total customers (Member or Normal):", nrow(member_or_normal), "\n")
Total customers (Member or Normal): 1000
> table(member_or_normal$Customer type)

Member Normal
501 499
> 
```

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creditcard 284807 obs. of 31 variables  
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