

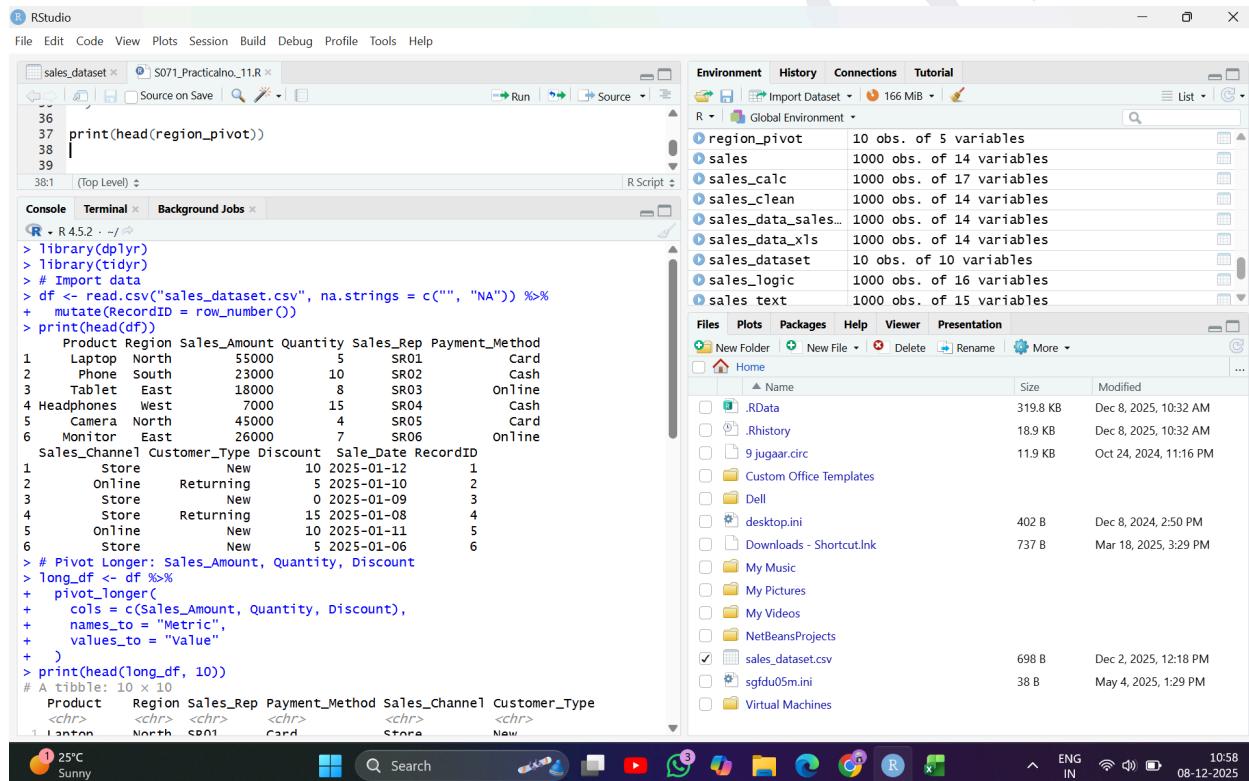
SHETH L.U.J AND SIR M.V COLLEGE

Subject: Data Analysis with SAS / SPSS /R

Practical no. 11

Aim: Reshaping data using
pivot_longer()/pivot_wider() (R).

Outputs →



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Subject: Data Analysis with SAS / SPSS /R

RStudio interface showing R script execution and environment pane.

Script pane:

```
36  
37 print(head(region_pivot))  
38  
39  
38:1 (Top Level) R Script
```

Console pane:

```
R - R 4.5.2 · ~/~>  
> print(head(long_df, 10))  
# A tibble: 10 × 10  
  Product Region Sales_Rep Payment_Method Sales_Channel Customer_Type  
  <chr>   <chr>  <chr>    <chr>      <chr>        <chr>  
1 Laptop   North  SR01     Card       Store      New  
2 Laptop   North  SR01     Card       Store      New  
3 Laptop   North  SR01     Card       Store      New  
4 Phone    South  SR02     Cash       Online     Returning  
5 Phone    South  SR02     Cash       Online     Returning  
6 Phone    South  SR02     Cash       Online     Returning  
7 Tablet   East   SR03     Online    Store      New  
8 Tablet   East   SR03     Online    Store      New  
9 Tablet   East   SR03     Online    Store      New  
10 Headphones West   SR04    Cash       Store     Returning  
# i 4 more variables: Sale_Date <chr>, RecordID <int>, Metric <chr>,  
# value <int>  
> # Pivot Wider: Convert back to wide format  
> wide_df <- long_df %>%  
+ pivot_wider(  
+   names_from = Metric,  
+   values_from = value  
+ )  
> print(head(wide_df))  
# A tibble: 6 × 11  
  Product Region Sales_Rep Payment_Method Sales_Channel Customer_Type  
  <chr>   <chr>  <chr>    <chr>      <chr>        <chr>  
1 Laptop   North  SR01     Card       Store      New  
2 Phone    South  SR02     Cash       Online     Returning  
3 Tablet   East   SR03     Online    Store      New  
4 Headphones West   SR04    Cash       Store     Returning  
5 Camera   North  SR05     Card       Online     New  
6 Monitor  East   SR06    Online    Store      New
```

Environment pane:

- region_pivot 10 obs. of 5 variables
- sales 1000 obs. of 14 variables
- sales_calc 1000 obs. of 17 variables
- sales_clean 1000 obs. of 14 variables
- sales_data_sales... 1000 obs. of 14 variables
- sales_data_xls 1000 obs. of 14 variables
- sales_dataset 10 obs. of 10 variables
- sales_logic 1000 obs. of 16 variables
- sales_text 1000 obs. of 15 variables

File menu:

- New Folder
- New File
- Delete
- Rename
- More

System status bar:

- 25°C Sunny
- Search
- ENG IN
- 10:58
- 08-12-2025

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4 Headphones West   SR04    Cash       Store     Returning  
5 Camera   North  SR05     Card       Online     New  
6 Monitor  East   SR06    Online    Store      New  
# i 5 more variables: Sale_Date <chr>, RecordID <int>, Sales_Amount <int>,  
# quantity <int>, Discount <int>  
> # Region-wise Sales Pivot  
> region_pivot <- df %>%  
+ select(RecordID, Region, Sales_Amount) %>%  
+ pivot_wider(  
+   names_from = Region,  
+   values_from = Sales_Amount  
+ )  
> print(head(region_pivot))  
# A tibble: 6 × 5  
  RecordID North  South  East   West  
  <int>   <int> <int> <int> <int>  
1       1  55000    NA    NA    NA  
2       2  23000    NA    NA    NA  
3       3    NA  18000    NA    NA  
4       4    NA    NA    NA  2000  
5       5  45000    NA    NA    NA  
6       6    NA  26000    NA    NA
```

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