

**SHETH L.U.J.AND SIR M.V. COLLEGE**  
**PRACTICAL NO.12**  
**Data Analysis with SAS / SPSS /R**

**AIM:-** Combining datasets vertically (concatenation) using rbind() (R).

**INPUT:-**

```
library(dplyr)
```

```
# Read both datasets from YOUR path
```

```
wine_df <- read.csv("D:/S079_VIBHUTI/ADV PYTHON FOR DATA  
SCIENCE/winequality-red.csv")
```

```
shades_df <- read.csv("D:/S079_VIBHUTI/ADV PYTHON FOR DATA  
SCIENCE/shades.csv")
```

```
print("--- Column Names Before Alignment ---")
```

```
print(names(wine_df))
```

```
print(names(shades_df))
```

```
# 1. Prepare Wine Data
```

```
wine_clean <- wine_df %>%  
  select(quality) %>%  
  mutate(Type = "Wine") %>%  
  rename(Value = quality)
```

```
# 2. Prepare Shades Data
```

```
shades_clean <- shades_df %>%
```

**VIBHUTI GAWADE**

**S079**

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```
select(product) %>% # <<--- correct column name  
mutate(Type = "Shade") %>%  
rename(Value = product)
```

# 3. Combine Vertically

```
combined_data <- rbind(wine_clean, shades_clean)
```

```
print("--- Combined Data Preview ---")  
print(head(combined_data))  
print(tail(combined_data))  
  
print("--- Row Summary ---")  
print(paste("Wine rows:", nrow(wine_clean)))  
print(paste("Shades rows:", nrow(shades_clean)))  
print(paste("Total rows:", nrow(combined_data)))
```

**OUTPUT:-**

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```
> library(dplyr)
>
> # Read both datasets from YOUR path
> wine_df <- read.csv("D:/S079_VIBHUTI/ADV PYTHON FOR DATA SCIENCE/winequality-red.csv")
> shades_df <- read.csv("D:/S079_VIBHUTI/ADV PYTHON FOR DATA SCIENCE/shades.csv")
>
> print("---- Column Names Before Alignment ---")
[1] "---- Column Names Before Alignment ---"
> print(names(wine_df))
[1] "fixed.acidity"      "volatile.acidity"    "citric.acid"        "residual.sugar"
[5] "chlorides"          "free.sulfur.dioxide" "total.sulfur.dioxide" "density"
[9] "pH"                 "sulphates"           "alcohol"            "quality"
> print(names(shades_df))
[1] "brand"              "brand_short"         "product"           "product_short"
[5] "S"                  "V"                  "L"                 "hex"
[6] "H"                  "group"
>
>
> # 1. Prepare Wine Data
>
> wine_clean <- wine_df %>%
+   select(quality) %>%
+   mutate(type = "wine") %>%
+   rename(value = quality)
>
> # 2. Prepare Shades Data
>
> shades_clean <- shades_df %>%
+   select(product) %>%     # <<-- correct column name
+   mutate(type = "shade") %>%
+   rename(value = product)
>
>
> # 3. Combine Vertically
>
> combined_data <- rbind(wine_clean, shades_clean)
>
> print("---- Combined Data Preview ---")
[1] "---- Combined Data Preview ---"
> print(head(combined_data))
```



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```
Console Terminal x Background Jobs x
R v R 4.1.2 . ~/ 
+ rename(Value = quality)
>
> # 2. Prepare Shades Data
>
> shades_clean <- shades_df %>%
+   select(product) %>% # <<-- correct column name
+   mutate(Type = "Shade") %>%
+   rename(value = product)
>
>
> # 3. Combine Vertically
>
> combined_data <- rbind(wine_clean, shades_clean)
>
> print("--- Combined Data Preview ---")
[1] "--- Combined Data Preview ---"
> print(head(combined_data))
  value Type
1     5 Wine
2     5 Wine
3     5 Wine
4     6 Wine
5     5 Wine
6     5 Wine
> print(tail(combined_data))
  value Type
2219 True Match Shade
2220 True Match Shade
2221 True Match Shade
2222 True Match Shade
2223 True Match Shade
2224 True Match Shade
>
> print("--- Row Summary ---")
[1] "--- Row Summary ---"
> print(paste("wine rows:", nrow(wine_clean)))
[1] "wine rows: 1599"
> print(paste("shades rows:", nrow(shades_clean)))
[1] "shades rows: 625"
> print(paste("Total rows:", nrow(combined_data)))
[1] "Total rows: 2224"
>
```