

Resolução

```
1 library(readxl)
2 library(ggplot2)
3
4 data <- read_excel("wine_prod_EU.xlsx")
5 clean_data <- data[data$Category != "-" & data$'Product Group' != "Non-Vinified", ]
6 data_2019 <- clean_data[clean_data$Year == 2019, ]
7
8 organized_countries <- data_2019
9 organized_countries$'Member State'[organized_countries$'Member State' != "France" &
10   organized_countries$'Member State' != "Italy" &
11   organized_countries$'Member State' != "Spain"] <- "Others"
12
13 organized_data <- aggregate('Opening Stock' ~ 'Member State' + Category,
14   data = organized_countries,
15   FUN = sum)
16 organized_data$Category <- factor(organized_data$Category,
17   levels = c("Varietal", "P.D.O. wines", "P.G.I. wines", "Other wines"))
18 organized_data$'Member State' <- factor(organized_data$'Member State',
19   levels = c("France", "Italy", "Spain", "Others"))
20 ggplot(organized_data, aes(x = Category, y = 'Opening Stock', fill = 'Member State')) +
21   geom_bar(stat = "identity", position = "dodge") +
22   labs(title = "Opening Stock of Wine by Category across Countries in 2019",
23     x = "Category",
24     y = "Opening Stock (x103 hL)",
25     fill = "Countries") +
26   theme_minimal()
```

Gráfico

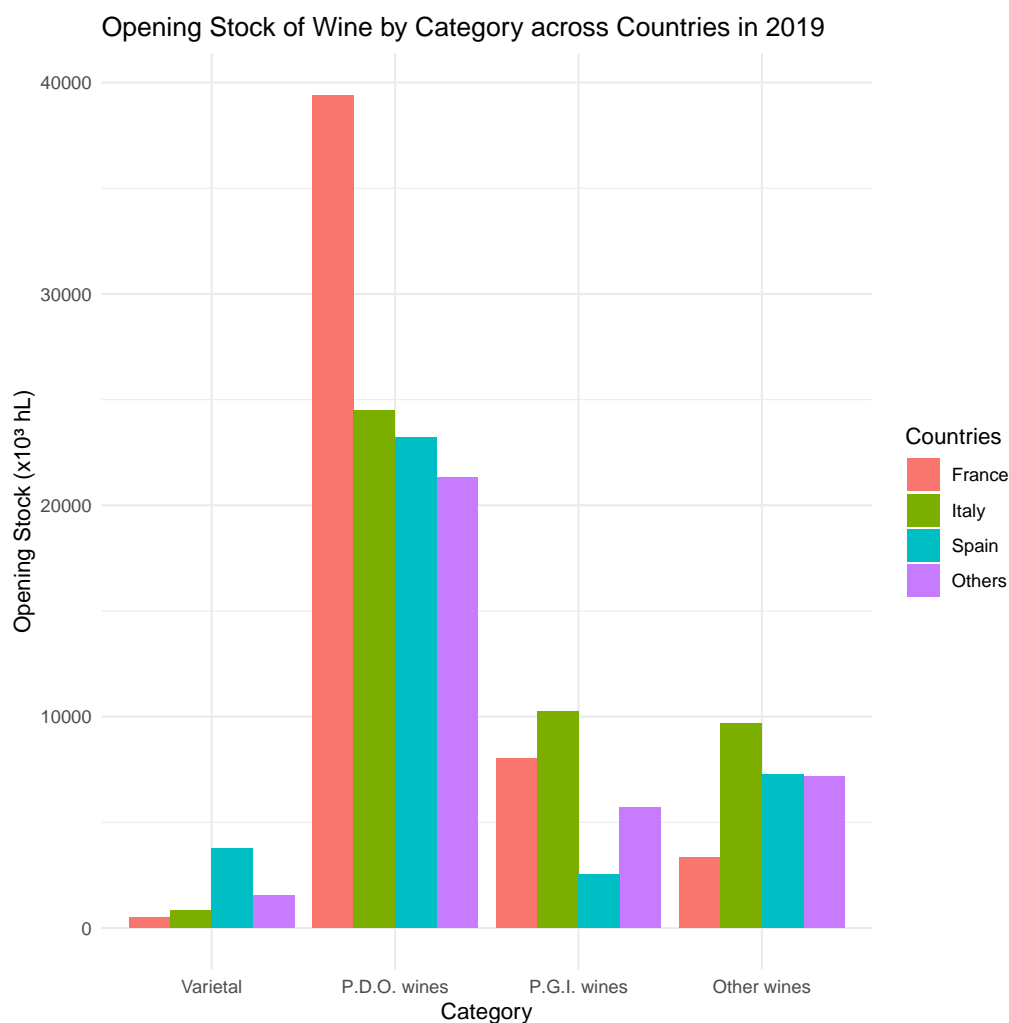


Figure 1: Gráfico