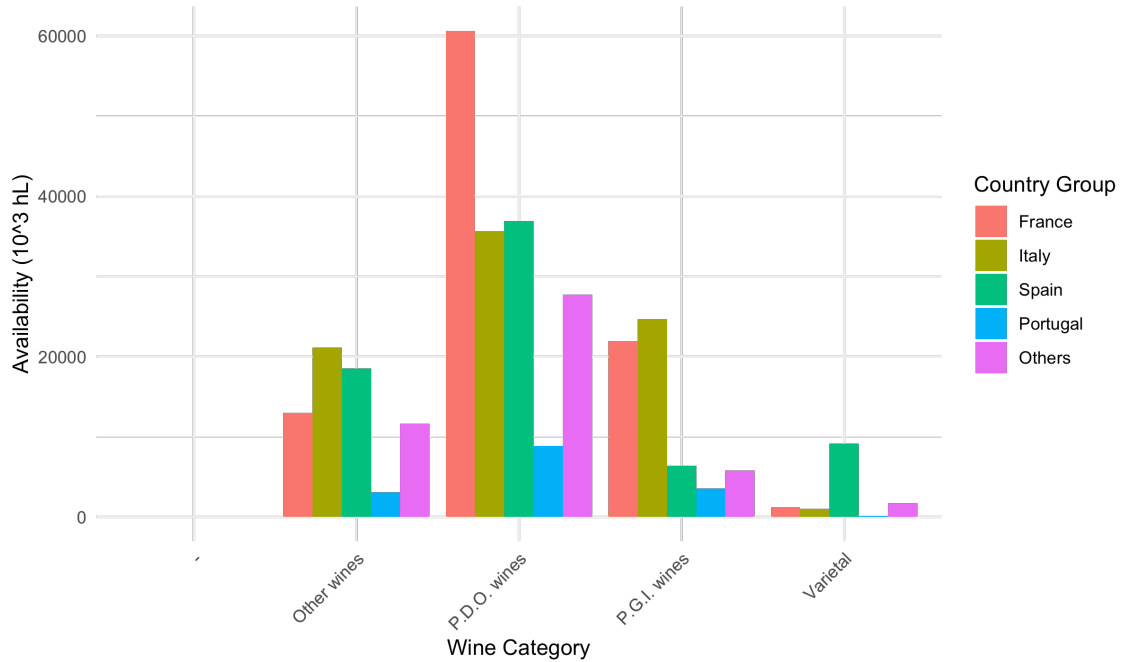


Wine Availability by Category and Country Group in 2016



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15
16 # SUBMISSÃO
17 ## PDF com uma página A4 que inclua o código e o gráfico produzido
18
19 #pacote ggplot2 e readxl
20 library(ggplot2)
21 library(readxl)
22
23 #ler o ficheiro
24 dados <- read_excel("pergunta2/wine_prod_EU.xlsx")
25
26 #remover observações com Category em falta ou Product Group == "Non-Vinified"
27 df_wine_cleaned <- subset(dados, !is.na(Category))
28 df_wine_cleaned <- subset(df_wine_cleaned, 'Product Group' != "Non-Vinified")
29
30 #filtrar apenas o ano de 2016
31 df_2016 <- subset(df_wine_cleaned, Year == 2016)
32
33 #criar nova coluna para agrupar países
34 df_2016$Country_Group <- ifelse(df_2016$Member State == "France", "France",
35                               ifelse(df_2016$Member State == "Italy", "Italy",
36                                     ifelse(df_2016$Member State == "Spain", "Spain",
37                                           ifelse(df_2016$Member State == "Portugal", "Portugal", "Others"))))
38
39 #agrupar e somar Availability por Country_Group
40 df_plot_data <- aggregate(Availability ~ Category + Country_Group, data = df_2016, FUN = sum, na.rm = TRUE)
41
42 df_plot_data$Country_Group <- factor(df_plot_data$Country_Group,
43                                   levels = c("France", "Italy", "Spain", "Portugal", "Others"))
44
45 #criar gráfico de barras
46 wine_plot <- ggplot(df_plot_data, aes(x = Category, y = Availability, fill = Country_Group)) +
47   geom_bar(stat = "identity", position = "dodge") +
48   labs(
49     title = "Wine Availability by Category and Country Group in 2016",
50     x = "Wine Category",
51     y = "Availability (10^3 hL)",
52     fill = "Country_Group"
53   ) +
54   theme_minimal() +
55   theme(axis.text.x = element_text(angle = 45, hjust = 1)) # Roda as legendas do eixo X
56
57 ggsave("grafico_vinho.png", width = 8, height = 5)

```