

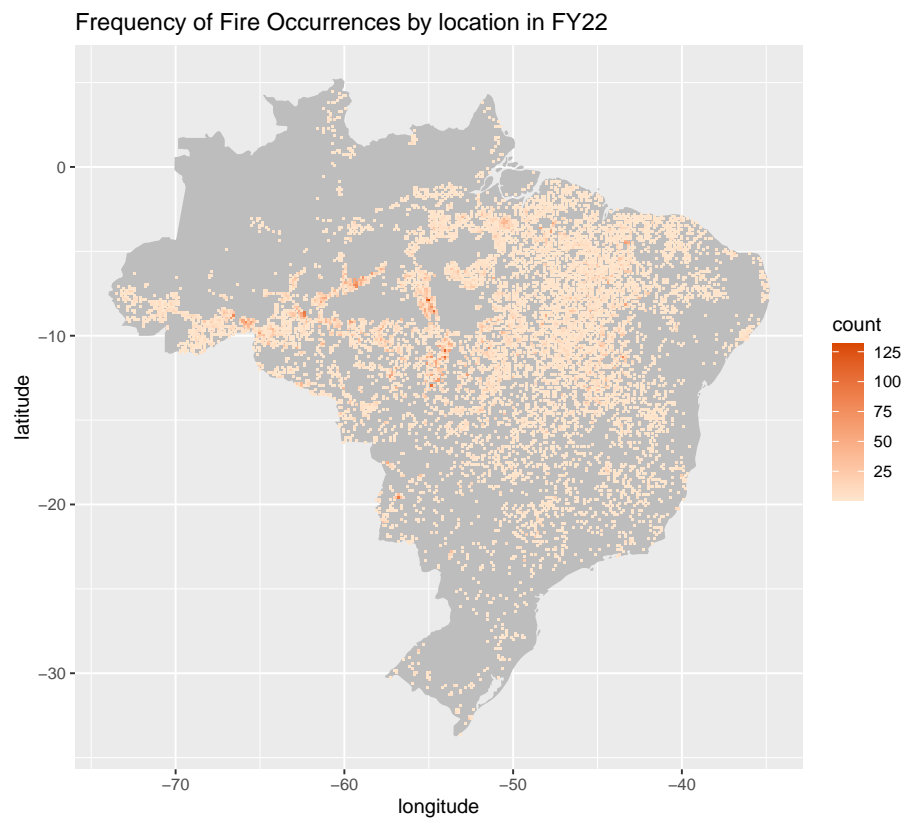
```

# Obtain the Brazil map data
brazil_map <- map_data("world", region = "Brazil")

# Create the heatmap of fire occurrences
fire_heatmap <- ggplot(confident_fire_fy22, aes(x = longitude, y = latitude)) +
  geom_polygon(data = brazil_map, aes(x = long, y = lat, group = group),
    fill = "#bdbdbd") +
  geom_bin2d(bins = 300) +
  scale_fill_gradient(low = "#fee6ce", high = "#d94801") +
  coord_fixed(ratio = 1) +
  labs(title = "Frequency of Fire Occurrences by location in FY22")

print(fire_heatmap)

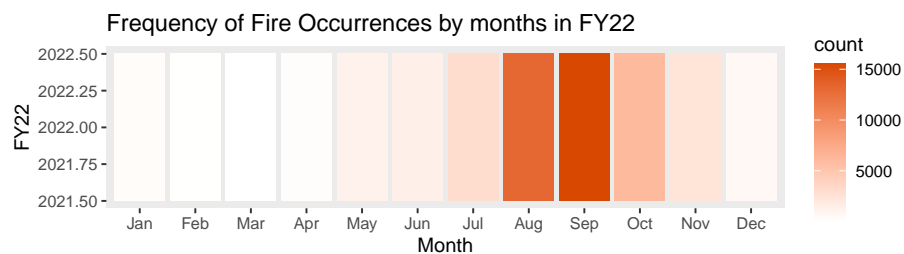
```



Colour selection from: <https://colorbrewer2.org/#type=sequential&scheme=Oranges&n=9>

```
heatmap_plot <- ggplot(confident_fire_months_fy22,
  aes(x = abb_month, y = 2022, fill = count)) +
  geom_tile(width = 0.9, height = 1) + # Create the heatmap tiles
  scale_fill_gradient(low = "white", high = "#d94801") + # Customize the color scale
  labs(title = "Frequency of Fire Occurrences by months in FY22", x = "Month", y = "FY22") +
  theme(panel.grid = element_blank() )

# Display the heatmap
print(heatmap_plot)
```



From the table, we can clearly see that August and September are the riskiest months in terms of fire hazard, whereas November to July hardly pose any risk at all. It's natural to ask the follow-up question: How does FY22 compare to previous years? Is it valid to claim that August and September are the fire hazard season?