Tidy Tuesday Billboard

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1 Packages

```
# load required packages
library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --

## v ggplot2 3.3.5     v purrr   0.3.4
## v tibble  3.1.4     v dplyr   1.0.7
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   2.0.1     v forcats 0.5.1

## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(tidytuesdayR)
library(ggridges)
library(ggtext)

theme_set(theme_light())
```

2 Data

```
data_tue <- tidytuesdayR::tt_load('2021-09-14')
```

```
## --- Compiling #TidyTuesday Information for 2021-09-14 ----

## --- There are 2 files available ---

## --- Starting Download ---

##
##  Downloading file 1 of 2: ‘billboard.csv‘
##  Downloading file 2 of 2: ‘audio_features.csv‘

## --- Download complete ---
```

We have two files for this tuesday data

```
billboard <- data_tue$billboard

spotify <- data_tue$audio_features
```

3 Function

Make a function to pick keywords, in this case colors

```
pick_color <- function(col_int) {

  left_join(billboard, spotify, by = c('song_id', 'song', 'performer')) %>%
  select(song, danceability, energy, valence, tempo,
         spotify_track_popularity) %>%
  filter(str_detect(song, {{col_int}})) %>%
  drop_na() %>%
  unique() %>%
    mutate(color_theme = {{col_int}}) %>%
    distinct(song, .keep_all = T)

}
```

4 Subset

Make a list of colors and map the function

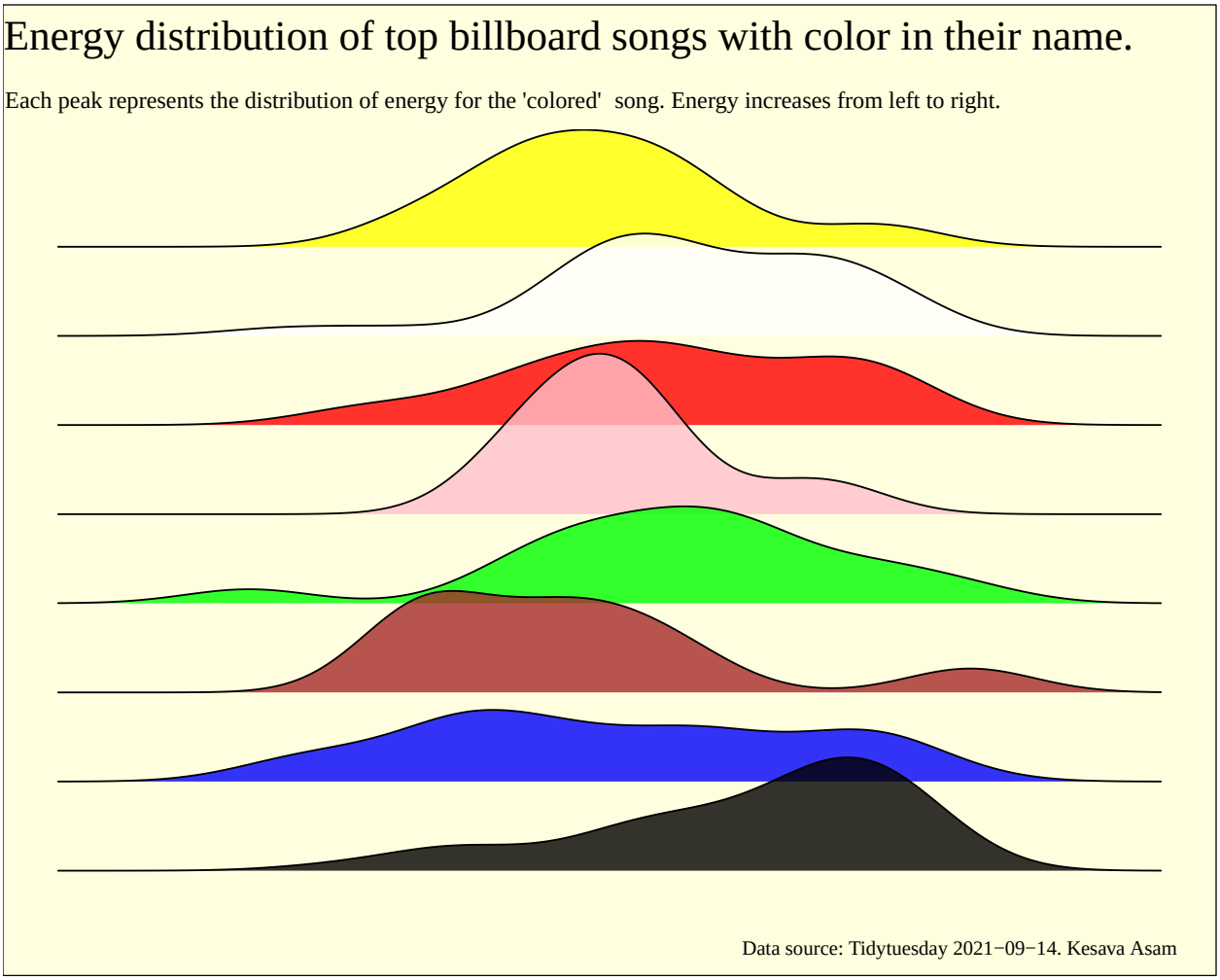
```
rygb <- c("Blue ", "Green ", "Yellow ", "Red ", "Black ", "White ", "Brown ", "Pink ")

# Note: Space next to the color is to get rid of words that are not colors

rygb_songs <- map_df(rygb, pick_color)
```

5 Visualization

Make ridges plot

```
rygb_songs %>%
  arrange(desc(color_theme)) %>%
  ggplot(aes(x = energy, y = color_theme, fill = color_theme)) +
  ggridges::geom_density_ridges(alpha = 0.8) +
  scale_color_identity(aesthetics = c("fill", "color")) +
  theme_void() +
  labs(title = "Energy distribution of top billboard songs with color in their name.",
       subtitle = "Each peak represents the distribution of energy for the 'colored' song. Energy increa
       caption = "Data source: Tidytuesday 2021-09-14. Kesava Asam") +
  theme(
    #plot.margin = margin(160,260,40,160),
    plot.background = element_rect(fill = "#FFFFE0"),
    plot.title = element_textbox_simple(colour = "black", family = "Times",
                                        size = 25, halign = 0.01, margin = margin(10,0,10,0)),
    plot.caption = element_textbox_simple(colour = "black", family = "Times",
                                          size = 12, halign = 0.95, margin = margin(10,0,10,0)),
    plot.subtitle = element_textbox_simple(colour = "black", family = "Times",
                                           size = 14, halign = 0.01, margin = margin(10,0,10,0))
  )
```

```
## Picking joint bandwidth of 0.0758
```




```
ggsave("tidy_tuesday_billboard_result.png",
       plot = last_plot(), width = 290, height = 190,
       units = "mm", dpi = 400)
```

```
## Picking joint bandwidth of 0.0758
```

```
sessionInfo()
```

```
## R version 4.1.1 (2021-08-10)
## Platform: x86_64-apple-darwin17.0 (64-bit)
## Running under: macOS Mojave 10.14.6
##
## Matrix products: default
## BLAS:   /Library/Frameworks/R.framework/Versions/4.1/Resources/lib/libRblas.0.dylib
## LAPACK: /Library/Frameworks/R.framework/Versions/4.1/Resources/lib/libRlapack.dylib
##
## locale:
## [1] en_US.UTF-8/en_US.UTF-8/en_US.UTF-8/C/en_US.UTF-8/en_US.UTF-8
##
## attached base packages:
## [1] stats     graphics  grDevices utils     datasets  methods   base
##
## other attached packages:
##  [1] ggtext_0.1.1       ggridges_0.5.3     tidytuesdayR_1.0.1 forcats_0.5.1
##  [5] stringr_1.4.0      dplyr_1.0.7        purrr_0.3.4        readr_2.0.1
##  [9] tidyr_1.1.3        tibble_3.1.4       ggplot2_3.3.5      tidyverse_1.3.1
##
## loaded via a namespace (and not attached):
##  [1] Rcpp_1.0.7       lubridate_1.7.10 assertthat_0.2.1 digest_0.6.27
##  [5] utf8_1.2.2       R6_2.5.1         cellranger_1.1.0 plyr_1.8.6
##  [9] backports_1.2.1  reprex_2.0.1     evaluate_0.14    highr_0.9
## [13] httr_1.4.2       pillar_1.6.2     rlang_0.4.11     curl_4.3.2
## [17] readxl_1.3.1     rstudioapi_0.13  rmarkdown_2.10   labeling_0.4.2
## [21] selectr_0.4-2    bit_4.0.4        munsell_0.5.0    gridtext_0.1.4
## [25] broom_0.7.9      compiler_4.1.1   modelr_0.1.8     xfun_0.25
## [29] pkgconfig_2.0.3  htmltools_0.5.2  tidyselect_1.1.1 fansi_0.5.0
## [33] crayon_1.4.1     tzdb_0.1.2       dbplyr_2.1.1     withr_2.4.2
## [37] grid_4.1.1       jsonlite_1.7.2   gtable_0.3.0     lifecycle_1.0.0
## [41] DBI_1.1.1        magrittr_2.0.1   scales_1.1.1     vroom_1.5.4
## [45] cli_3.0.1        stringi_1.7.4    farver_2.1.0     fs_1.5.0
## [49] xml2_1.3.2       ellipsis_0.3.2   generics_0.1.0   vctrs_0.3.8
## [53] tools_4.1.1      bit64_4.0.5      glue_1.4.2       markdown_1.1
## [57] hms_1.1.0        parallel_4.1.1   fastmap_1.1.0    yaml_2.2.1
## [61] colorspace_2.0-2 rvest_1.0.1      knitr_1.33       haven_2.4.3
## [65] usethis_2.0.1
```