ggplot exercises

Task #1 Load Data

You are given the `**netlix_titles.csv**` file.

Load the dataframe into the working directory and file.

Inspect it quickly.

Task #2 Filter and mutate data

- Create `**tv_shows**` dataframe by filtering original dataframe by type, keeping only entries after year 2000, and by transforming release_year to a factor column;
- Create `**movies**` dataframe by filtering original dataframe by type, keeping only entries after year 2000, and by transforming release_year to a factor column;
- Create `**tv_shows_agg**` by aggregating `tv_shows` (from before) and counting number of shows by year;
- Create `**movies_agg**` by aggregating `movies` (from before) and counting number of movies by year.

Task #3 Simple Barplot

- Create a simple barplot using the `**tv_shows**` for displaying the number of tv shows per year.

Task #4 Simple Barplot

- Create a simple barplot using the `**movies_agg**` for displaying the number of movies per year.

Task #5 Barplot

Create a barplot using the `**movies**` dataframe:

- Rotate the plot by 90 degrees
- Remove the legend
- Add custom text for x and y axes
- Add custom title
- Center the title
- Add custom ticks for y axis (from 0 to 800, by 50)

Task #6 Stacked Barplot

Create a stacked barplot using the `**tv_shows**` dataframe, stacking the shows by rating:

- Transform data by filtering null values for `**rating**` and mutating it to factor type
- Rotate the plot by 90 degrees
- Add custom labels for x and y axes
- Add a custom title
- Rotate the ticks on the bottom (flipped!) by 45 degrees
- Put the legend on the bottom

Task #7 Side-by-side Barplot

Adapt the plot from Task #6 by putting columns side by side instead of staking them

- Keep the original rotation

Task #8 Side-by-side Barplot, Faceted

Adapt the plot from Task #7 by displaying the plots in a faceted manner instead of putting them side by side

Task #9 Data Filtering for better visuals

```
filtered_movies <- movies %>%
  filter(
    as.numeric(as.character(release_year)) > 2010 &
      rating %in% c("TV-14", "TV-MA", "TV-PG", "TV-Y", "TV-Y7") &
      !is.na(rating) &
      !is.na(listed_in)
  ) %>%
  mutate(
    rating = factor(rating),
    genre = factor(str_split(listed_in, ",") %>% sapply(`[`, 1))
  ) %>%
  filter(
    genre %in% c("Dramas", "Comedies", "Horror Movies",
"Documentaries", "Thrillers")
  )
```

Task #9 Barplot for 3 variables, wrap

Using the `**filtered_movies**` dataframe, create a barplot that will display number of movies based on three columns: year, rating and genre:

- Choose another theme
- Add custom x and y axis labels
- Rotate the x axis ticks by 45 degrees
- Add a custom title
- Using a **facet wrap**, add both the genre and rating
- Remove the legend

Task #10 Barplot for 3 variables, grid

Using the `**filtered_movies**` dataframe, create a barplot that will display number of movies based on three columns: year, rating and genre:

- Choose another theme
- Add custom x and y axis labels
- Rotate the x axis ticks by 45 degrees
- Add a custom title
- Using a **facet grid**, add both the genre and rating
- Remove the legend

Task #11 Load video games data

Download and load video games dataset into the current working directory.

Task #12 Simple histogram

Create a histogram for `**NA_Sales**` for “Sony Computer Entertainment” Publisher:

- Add a custom title
- Use a different color for bins outline

Task #13 Customized histogram

Create a histogram for `**EU_Sales**` for “Fighting” Genre:

- Add a custom title
- Use a different color for bins outline
- Change color for bins
- Add opacity to bins
- Change the bin width to cover intervals of 0.2
- Add a dotted red line that will represent the mean of the data
-

Task #14 Customized histogram

Create a histogram for `**Global_Sales**` for “Electronic Arts” Publisher:

- Add a custom title
- Add a custom text for x axis
- Use a different color for bins outline
- Change color for bins
- Add opacity to bins
- Add a dotted red line that will represent the mean of the data
- Add a line that will replicate the density estimation of the data

Task #15 Customized histogram

Create two super imposed histograms for `**NA_Sales**` and `**EU_Sales**` for “Activision” Publisher:

- Use red color for NA_Sales
- Use yellow color for EU_Sales
- Use opacity for bins
- Add custom title
- Add custom x axis label

Task #16 Customized histogram

Create two super imposed histograms for `**NA_Sales**` and `**EU_Sales**` for “Activision” Publisher:

- Prior to that - transform data from wide to long format!
- Use opacity for bins
- Add custom title
- Add custom x axis label

Task #17 Customized histogram, facet

On the long data format from Task #16, use facet wrap to move from two histograms on one plot to 2 plots for each of the histograms.

Task #18 Customized density plot

Create two super imposed density plots for `**EU_Sales**` and `**Other_Sales**` for “Racing” Genre:

- Use red color for Eu_Sales
- Use yellow color for Other_Sales
- Use opacity for bins
- Add custom title
- Add custom x axis label

Task #19 Customized density plot

Create two super imposed density plots for `**EU_Sales**` and `**Other_Sales**` for “Racing” Genre:

- Prior to that - transform data from wide to long format!
- Use opacity for bins
- Add custom title
- Add custom x axis label

Task #20 Customized density plot

On the long data format from Task #19, use facet wrap to move from two density plots on one plot to 2 plots for each of the densities.

Task #21 Customized boxplot

Filter data by “Shooter” Genre and “PS4” Platform. Create a boxplot of `**Global_Sales**`:

- Add a custom title
- Add custom text for y axis
- Remove x axis and text for x axis

Task #22 Customized boxplots

- Create three boxplots for `**NA_Sales**`, `**EU_Sales**` and `**Other_Sales**`

Task #23 Correlation plot

Create a simple mixed correlation plot

Task #24 Correlation plot

Create a simple number correlation plot ot bottom part only.