### Session 6 – Exercise Week 6: Spotify

### Topics covered

* Build a dashboard to tell a story
  + Find insight in provided dataset (from Spotify).
  + Create different charts that matches the data.
  + Encourage students to make their own chart choices for getting insight.

### To Do

* Use Spotify data to get insight about the most streamed artist and songs

### Instructions

Open “Visual Analytics PGR110 - Session 6 – Starter”, which includes the required data source.

### Chart one – Total Monthly Streams

1. Create a new sheet.
2. Use data source “Spotify data analysis”.
3. Show number of streams per month, include Track Name, Artist and Album on detail & tooltip, showing this as a horizontal bar chart.
   1. Sum of “Streams” (to Columns).
   2. Month of “Week End Date “(Discrete Date Part Month, to Rows).
   3. Change to Bar (on Marks Card).
   4. Expand view to Entire View (from menu bar, “Fit”-window).
4. Split each bar to each Track Name, color by streams, use Green Color.
   1. “Track Name” to Detail (on Marks Card)
   2. Sum of “Streams” to Color.
   3. Change color to Green (click on Color on Marks Card, Edit Colors).
5. Add “Artist” and “Album” to Tooltip.
   1. Drag both Dimensions to Tooltip on Marks Card.
   2. Adjust Tooltip to something that’s nicer and easier to read (as previous instructed and shown).
6. Fix Title and background, minor clean up.
   1. Rename the sheet to “Total Monthly Streams”.
   2. Edit Title, center alignment.
   3. From Format menu line, Shading. Change Default Worksheet to Black.
   4. Lines, Sheet, remove all lines (set to None).
   5. Format font color for the months to White.
   6. Remove the axis header (for SUM(Streams)).
   7. Remove the “Month of Week End Date” (right click, “Hide Field Labels for Rows”).
7. A screenshot of a computer

   Description automatically generated with medium confidence

### Chart two – Top Streamed Artists

1. Create a new sheet.
2. Use data source “Spotify data analysis”.
3. Show number of streams per artist, limited by top 10 artist. Visualize this by creating a lollipop chart.
   1. Sum of “Streams” (to Columns).
   2. “Artist” to Rows. Sort data Descending
   3. Add a new copy of Sum of “Streams” to Columns.
   4. Change the new copy (from Marks Card) to Circle.
   5. Create a Dual Axis (right click on the rightmost copy of SUM(Streams), Dual Axis).
      1. If the original bar chart becomes a Circle, change this back to Bar. You should have one bar and one circle
   6. Synchronize axis (right click on the lowest axis). Remove the axis (remove header).
   7. Add Sum of “Streams” to Label (on the circle). Adjust alignment to Vertical, Bottom.
   8. Format label, edit numbers, numbers (custom), unit to billions and 1 decimal
4. Adjust color and size.
   1. Adjust the bar size to ca. 15 %, the circle size to ca. 65%.
   2. Add “Top N Streams” to filter, select “Range of Values” – top 10 values.
   3. Expand view to Entire View (from menu bar, “Fit”-window).
   4. Change color to Green “#1db954” (click on Color on Marks Card, Edit Colors, change the HTML value).
5. Fix Title and background, minor clean up.
   1. Rename the sheet to “Top Streamed Artists”.
   2. Edit Title, center alignment.
   3. From Format menu line, Shading. Change Default Worksheet to Black.
   4. Lines, Sheet, remove all lines (set to None).
   5. Borders, set Row Divider and Column Divider to None.
   6. Format font color for the months to White.
   7. Remove the “Artist” header (right click, “Hide Field Labels for Rows”).
6. Graphical user interface

   Description automatically generated

### Chart three – Top Artists by Songs

1. Create a new sheet.
2. Use data source “Spotify data analysis”.
3. Create a word cloud with the top 30 artists with most songs released in the period of the dataset.
   1. “Artist” to Text (on Marks Card).
   2. Change from Automatic to Text on the Marks Card
   3. “Track Number” to Size. Change to Measure, Count (Distinct).
   4. Add “Top N Artists” to Detail. Change Table Calculation (Right Click, Compute Using, choose “Artist”).
   5. Drag this adjusted green pill to Filters, limit to top 30
4. Fix Title and background, minor clean up.
   1. Rename the sheet to “Top Artists by Songs”.
   2. Edit Title, center alignment.
   3. From Format menu line, Shading. Change Default Worksheet to Black.
   4. Change color to Green “#1db954” (click on Color on Marks Card, Edit Colors, change the HTML value).
5. Text

   Description automatically generated

### Chart four-six – KPI’s

1. Create a new sheet.
2. Use data source “Spotify data analysis”.
3. Create 3 different KPI’s to be used on the dashboard
   1. Add “Artist” to Text (on Marks Card). Change to Count Distinct.
   2. From Format menu line, Shading. Change Default Worksheet to Black.
   3. Change color to Green “#1db954” (click on Color on Marks Card, Edit Colors, change the HTML value).
   4. Edit the Label to Size 40, Middel Center Alignment (click on the “Text” box on the Marks Card).
4. Rename Sheet, adjust title and remove tooltip.
   1. Rename sheet to “Unique Artists”.
   2. Adjust title to center alignment.
   3. Turn of Tooltip (click on Tooltip on Marks Card, tick off “Show tooltips”.
5. Duplicate the sheet (right click on the sheet name, Duplicate)
   1. Rename sheet to “Unique Tracks”
   2. Replace “CNTD(Artist)” with “CNTD(Track Id).
6. Duplicate the sheet (right click on the sheet name, Duplicate)
   1. Rename sheet to “Unique Albums”
   2. Replace “CNTD(Artist)” with “CNTD(Album Name).
7. Chart, treemap chart

   Description automatically generated

Create dashboard

1. Create a new dashboard
   1. Add a Vertical Container to the dashboard.
      1. Add all 3 KPI’s to this container.
   2. Add “Total Monthly Streams” to the right of the container. Delete the color legend.
   3. Add a Horizontal Container to the bottom of the dashboard.
      1. Add the “Top Streamed Artists” and “Top Artists by Songs” to this container.
   4. Add a title (Text object from “Objects”): “Spotify Weekly Global Top 200 Analysis”.
   5. Download and add a logo to the dashboard (top, left of the title) of the Spotify logo.
2. Add interactivity
   1. On each of the 3 charts (not the KPI’s), add “Use as Filter”.
      1. Click on any chart/sheet in the dashboard, go to the small menu on the top right corner, click on the Funnel “Use as Filter”.
3. Test the interactivity.
4. Graphical user interface, text

   Description automatically generated