Documentation to Tableau assignment

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Analysis Goal: To review historical data on how data management & analysis unicorn companies sprung up around the world in 2010-2021.

Research Questions: What country leads in total value of unicorn companies in data management & analysis? What are the five top valued companies? Is the market still growing? Where are the best funding opportunities for starting your business in data management & analysis?

The data source and snapshot analysis of raw data: The data comes from Maven Analytics: https://www.mavenanalytics.io/data-playground . It is a .csv file with a bit over 1,000 entries, which includes information on unicorn companies around the world, the area of industry, the valuation and funding and funders, year of founding and access to market. Upon review of the raw data, it is evident that most data apart from founding year and date of market joint are in a string. Hence, before producing our charts we will need to transform some data into numeric.

Design goals for dashboard and charts: Through simple and accessible design we provide information for potential founders of data management & analytics companies, as well as their investors on how the market was developing in the last 10+ years. We use the same recognizable color scheme through out all our analysis and insert annotations and labels.

Dashboard short description:

Our analysis of the 2010-2021 historical data shows that the leading market for data management & analytics is the US with **109$B** in total value of unicorn companies in this field. Only 5 companies worldwide are valued above **$5 Billion** and by far the leader in the field is the US based Databricks with **38$B** in its market value. It is also a top recipient of funding **(3 $B). USA** leads the market in terms of overall value of **14$B.** However, if you are an inspiring entrepreneur in the field of data management & analytics you may also consider to found your company in **Germany or Belgium** where unicorn companies managed to raise **1$B and 0.5$B** respectively. Finally, if you wonder about tendencies in the number of unicorn companies created recently, so far **2015 is the year when most companies were founded** with a **steady decline since then**.

Step-by-step:

Throughout our analysis we use the same recognizable color scheme HTML: #843a7a which alludes to unicorn company nature and light grey background for easier reader's perception. We use annotations and labels, as well as manipulate charts to include only relevant information.

1. **Review the raw data.**
2. **Define columns for use and check their type.**
3. **Create calculations for relevant string columns, i.e. Valuation in $B and Funding in $M and $B.**
4. **Define chart types to prepare based on available data: map(geolocation), scatterplot, timeseries, bar chart.**
5. **On each chart create relevant filters, e.g. year of founding 2010-2021 (end date of data), filter industry for Data Management & Analytics.**
6. **Define what are observations and variables we are using and what values of central tendency we will need.**
7. **Create charts and include annotations for max points.**
8. **Prepare the dashboard, rearrange the sheets, prepare titles and subtitles and harmonise the color scheme.**
9. **Save the file in .twbx format**