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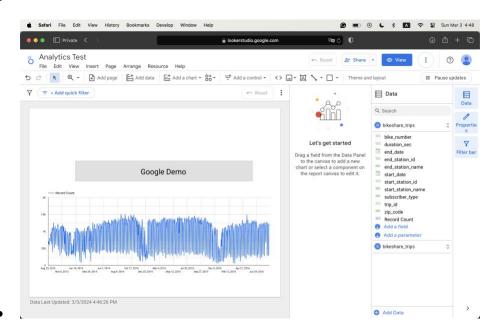
Dr. Shawn Bowers

CPSC 324

03 March 2024

Homework 3

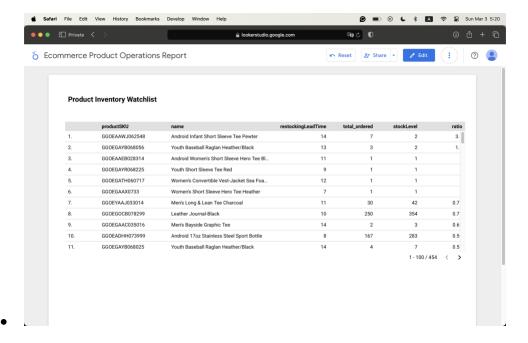
1. Question 1



- I don't think any notes need to be taken here. The GUI is pretty self-explanatory on its own.
- Probably the only question I have so far is what is the difference between dragging ratio into dimensions and metrics.
 - o Dimension contains unaggregated data
 - Metrics contain aggregated data

2. Question 2

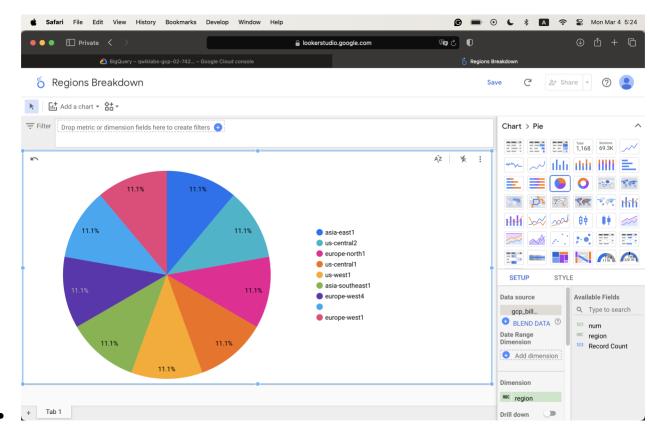
• I think I got the part for my question above. Dimension is the fields, and the number is more like representations for the fields.



a.

- First, create an explorer.
- Hit "Create New Data", then choose "Big Query."
- Click "Custom Query", then put in the SQL commands
- Hit "Connect", then "Apply."
- Make sure you get the data in the metric fields
- Click the Pie chart symbol, then Save

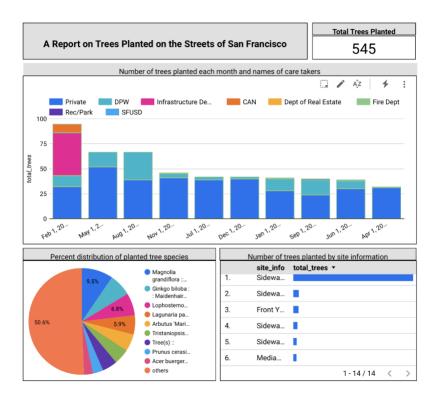
b.



a.

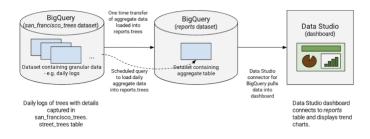
- Write the SQL query as usual.
- Click "More" and select "Query settings."
 - o Choose "Set a destination table for query results
 - Put in the Dataset name (should create before)
 - Put in the Table ID
 - o Choose "Write if empty."
- Click "Schedule" and choose "New scheduled query."
 - Put in the scheduled query name
 - Put in the scheduled query interval option
 - Set the destination table

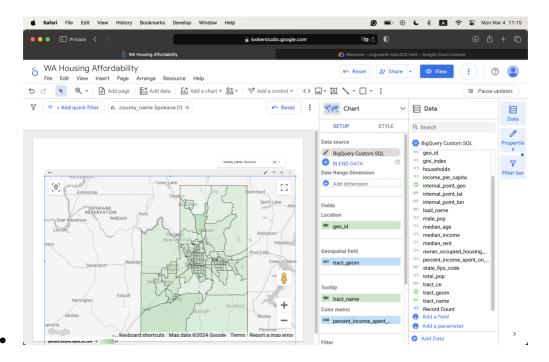
c.



d.

- I don't run into any issues. However, there are some notes that I can take
- A dashboard does not need all of the details of the table. It only needs an aggregate view
- With that, to reduce the cost, we first aggregate the logs into another dataset called "Reports" and then create a table of aggregated data
- Periodically, it will reload to fetch new data





6. Question 6

- Looker Studio overview/workflow
 - o Create a report
 - o Connect to a dataset
 - o Transform data for use in visualization
 - Visualize existing data report
 - Share the data
 - Update and refine the report
- Drilling data
 - O Use to view more information and context in a single field/chart
 - o In their menu option, click the arrow to select the granularity of the data
 - Click "Filter on" to activate
 - O Basically, it is a way to "move" from this data subset to another one

- Connectors, Data Sources, and Credentials
 - Connectors: Connect Looker Studio to the underlying data. This creates a Data Source.
 - Can be third-party sources or Google products
 - Data Sources can be reusable if created from the home page. If they are created from the report, you need to edit it in the report.
 - o Credentials: Determine who has access to the data

c.

- The "All-in-One" Search Tool by Data Bloo
 - o This design looks clean and popping.
 - It has a good user interface, straightforward tabs, and subsections, as well as a good color choice that harmonizes the components.
- The SFO Data Sample Report
 - o It has a simple and modern look
 - o A creative transparent background that looks unique
 - O However, the color tone is a bit too bright, in my opinion

d.

- I would say that it needs to have a clear and simple design
 - Since Looker Studio or any other BI tools allow you to create an informative
 "dashboard'/summary of your data, it can easily have too many details that make
 it harder for you to realize what is going on.

- As the focus of the users should be on the data representation, the navigation and design should be simple so as not to distract them.
- The data should have clear labels to denote what is going on with the design. It should also represent meaningful data, not just random charts.
- Visualization wins over words.

b.

- How have the average salaries changed over the years?
 - Using a time series chart
- What is the difference in salary across different countries?
 - Using a bar chart
- What is the distribution of employment type (in-person, remote, hybrid)?
 - o Using a pie chart
- What are the average salaries of different job titles?
 - Using a table visualization

c.

• https://lookerstudio.google.com/reporting/2ab409f5-f39b-4170-8fdb-f2f62884985a

d.

- I think my design checks all of the points I mentioned above in Question 7.
- The aesthetic and color choice work well, in my opinion.
- I used clear labels to depict the information, making it easier for users to see the report.
- If I had more time, I would probably add more pages, in addition to a menu design to help navigate around.

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b.

- What is the proportion of overall reviews?
 - o Using a pie chart
- How many times have different reviewers reviewed the game?
 - Using a table visualization
- How many reviews are there per time period (date, month, year, etc.)?
 - Using a bar chart

c.

• https://lookerstudio.google.com/reporting/c85ddba7-2d8d-454d-a530-093c970de14a

10. Question 10

d.

- What is the number of UFOs spotted by country?
 - Use a Google Map table
- How many UFOs are spotted per time period?
 - Use a bar chart
- What is the proportion of UFO shapes spotted?
 - Use a pie chart
- What is the average duration of UFOs spotted by cities
 - Use a table visualization

e.

• https://lookerstudio.google.com/reporting/270cd9e2-c643-4d8f-9b4d-52a012baff7e.