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TECH FOR JOBS

Support Session 5

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## Agenda

- Dashboard Design Concepts
- Looker Studio

### Understanding the Business Process

- Dashboards: Interactive tools for open-ended data exploration.
- Flexibility: Adapt to evolving queries and uncover patterns.
- Goal: Help users analyze relationships and extract insights.



#### Choosing the Right Visualizations

- Tailor visuals to the audience and message.
- Use clear, distinguishable colors without distractions.
- Match visual types to data:
  - Bar charts: Comparisons.
  - Line charts: Trends.
  - Scatter plots: Relationships.



Source: https://academy.datawrapper.de/article/140-what-to-consider-when-choosing-colors-for-data-visualization

## Visualization Types and Use Cases

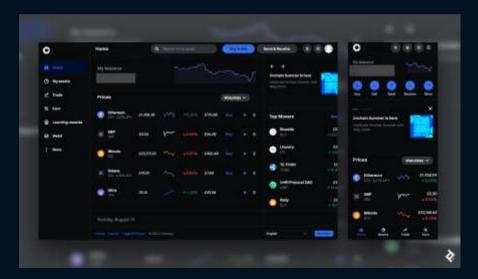
| Туре            | Purpose                        | Use Case                    |
|-----------------|--------------------------------|-----------------------------|
| Gauges          | Show a single value vs. range. | Progress toward a goal.     |
| Choropleth Maps | Show data by geography.        | Regional comparisons.       |
| Scatter Plots   | Show variable relationships.   | Trends, outliers.           |
| Line Charts     | Show trends over time.         | Revenue tracking.           |
| Tables          | Present detailed raw data.     | Tabular comparisons.        |
| Scorecards      | Summarize key metrics.         | Performance snapshots.      |
|                 |                                | Avg day Sold   Unique items |

#### Metrics and Dimensions in Dashboards

- Metrics: Numeric insights, such as revenue or satisfaction scores.
  - Purpose: It answers the "what" by providing a measurable insight.
  - Example: Total Sales (\$50,000).
- Dimensions: Contextual attributes, such as time or geography.
  - o Purpose: It answers the "where," "who," or "when," allowing the metric to be segmented.
  - Example: Sales by Product Category (e.g., Electronics, Clothing).
- Key Idea: Metrics show performance; dimensions provide context

### Planning the Dashboard Layout

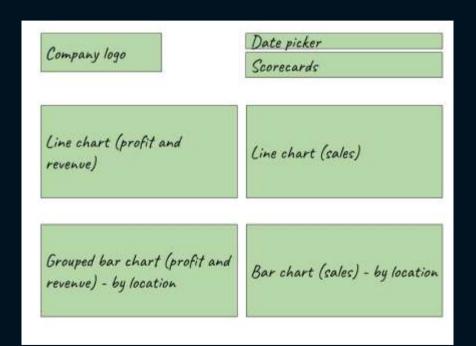
- Steps to Plan:
  - Define clear goals and audience needs.
  - Organize layout for logical flow (e.g., KPIs on top, charts in the center).
  - Add interactive filters for exploration.
  - Test responsiveness across devices.



## Bird's Eye View vs. Detailed View

| Aspect   | Bird's Eye View              | <b>Detailed View</b>       |
|----------|------------------------------|----------------------------|
| Purpose  | High-level overview.         | In-depth analysis.         |
| Visuals  | KPIs, basic charts.          | Complex charts, filters.   |
| Audience | Executives, decision-makers. | Analysts, data scientists. |

#### Bird's Eye View vs. Detailed View





#### Takeaways

- Understand the audience and goals.
- Use visuals to simplify insights and guide decisions.
- Balance high-level views with detailed analysis.
- An effective dashboard bridges data and decision-making.

#### What is Looker Studio?

 Looker Studio is a business intelligence tool by Google for creating interactive dashboards and reports.

- Key Features:
  - Connects to multiple data sources.
  - Offers custom visualizations.
  - Enables real-time collaboration and sharing.



#### **Looker Studio Connectors**

| Connector Type          | <b>Examples</b>            | <b>Update Type</b>                  | <b>Key Notes</b>      |
|-------------------------|----------------------------|-------------------------------------|-----------------------|
| Google Connectors       | Google Analytics,          | Auto-updated (Live)                 | Real-time or near     |
|                         | Sheets, BigQuery           |                                     | real-time updates.    |
| Partner Connectors      | Facebook Ads,              | Auto-updated (Live)                 | Relies on third-party |
|                         | Salesforce,                |                                     | integration.          |
|                         | Snowflake                  |                                     |                       |
| Community<br>Connectors | Custom APIs, niche sources | Varies (Depends on connector setup) | Rexible but may       |
|                         |                            |                                     | require               |
|                         |                            |                                     | configuration.        |
| File Uploads            | CSV, Excel                 | Manual update                       | Requires re-upload    |
|                         |                            |                                     | for changes to        |
|                         |                            |                                     | reflect.              |
| Extract Data            | Extracted snapshots        | Manual update                       | Faster performance    |
| Laraci Dala             |                            |                                     | but static data.      |

#### Looker Studio Best Practices

- Keep It Simple: Highlight key metrics and dimensions relevant to the audience.
- Use Filters and Controls: Enable viewers to explore data (e.g., Date Range, Regions).
- Leverage Custom Visualizations: Use Scorecards, Geo Maps, Line Charts, etc.
- Test Responsiveness: Ensure dashboards look good on all devices.