

Get started with data visualizations and dashboards

Produce a dashboard

- Video:** Plan a dashboard using mockups  
3 min
- Practice Quiz:** Activity: Design a data visualization mockup  
4 questions
- Reading:** Activity Exemplar: Design a data visualization mockup  
20 min
- Video:** Dashboard missteps and how to avoid them  
4 min
- Video:** Refresh your Tableau skills  
3 min
- Reading:** Visualization tool resources  
20 min
- Reading:** Balance tool limitations and user expectations  
10 min
- Reading:** Take a tour of Tableau  
20 min
- Practice Quiz:** Test your knowledge: Planning a dashboard  
3 questions

Review: Visualization basics for Business Intelligence

[Optional] Review Google Data Analytics Certificate content

# Balance tool limitations and user expectations

So far in this program, you have learned a lot about available business intelligence tools and how you can use them as a BI professional. These tools will help you to monitor incoming data, generate visualizations and dashboards, and empower stakeholders with access to reports. This helps stakeholders make informed decisions.

These tools also have limitations. They may not be able to process complex demands fast enough or generate complicated visualizations with a lot of metrics. In this reading, you’ll have an opportunity to review strengths and limitations of business intelligence tools.

## Tool performance

Coming up, you are going to learn more about what affects tool performance. But for now, there are three elements you should keep in mind:

- The scope of a project:** How much time needs to be represented in the dashboard? The longer the timeline, the more data needs to be processed and presented.
- The complexity of the metrics:** How many key performance indicators need to be captured by the dashboard? The more complex your metrics, the more processing speed is affected.
- The processing speed of your tool:** How fast can your tools actually respond to requests? The more requests, the more burden is placed on the system, which can slow down response times.

## Comparing common tools

Tool	Strengths	Limitations
Looker Studio	<ul style="list-style-type: none"><li>Can be connected with most databases and big data platforms</li><li>Intuitive and simple to use</li><li>Easily connects to other Google tools</li></ul>	<ul style="list-style-type: none"><li>Long loading times for larger dashboards</li><li>Not as flexible as other tools</li><li>Requires additional tools for reading data</li></ul>
Tableau	<ul style="list-style-type: none"><li>Versatile and customizable</li><li>Intuitive and simple to use</li><li>Can integrate a variety of data sources</li></ul>	<ul style="list-style-type: none"><li>Long loading times for larger dashboards and files</li><li>Limited graph selection</li></ul>
Microsoft Power BI	<ul style="list-style-type: none"><li>Intuitive and simple to use</li><li>Can integrate a variety of data sources</li><li>Variety of visualization choices</li><li>Easily connects to other Microsoft tools</li></ul>	<ul style="list-style-type: none"><li>Limited processing power</li><li>Cannot export third party visuals</li></ul>
MicroStrategy	<ul style="list-style-type: none"><li>Can integrate a variety of data sources</li><li>Intuitive and simple to use</li><li>Mobile support for users</li></ul>	<ul style="list-style-type: none"><li>More difficult to use custom reports</li><li>Includes detailed functionality that can be difficult to master</li></ul>

As a BI professional, part of your job will be considering tool limitations, as well as what affects a tool's performance and how to balance technological requirements with stakeholder needs. Continuing to think about tool limitations and user expectations will help you develop the best possible solutions for your projects, no matter what the requirements may be.

Mark as completed