

# Key Data Analyst Tools (In Depth Explanations)

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## Spreadsheets

Data analysts rely on spreadsheets to collect and organize data. Two popular spreadsheet programs you will use are Microsoft Excel and Google Sheets

Spreadsheets Structure data in a meaningful way by letting you

- Collect, Store, Organize, and Sort Information
- Identify patterns and piece the data together in a way that works for each specific data project.
- Create excellent data visualizations, like graphs and charts.

## Databases and Query Languages

A database is a collection of structured data stored in a computer system. Some popular *Structured Query Language* programs include **MySQL, Microsoft SQL Server, and BigQuery**

### Query Languages

- Allow analysts to isolate specific information from a database
- Make it easier for you to learn and understand the requests made to databases
- Allow Analysts to select, create, add, or download data from a database for analysis

## Visualization Tools

Data analysts use a number of visualization tools, like **Graphs, Maps, Tables, Charts**, and more. Two Popular visualization tools are, **Tableau and Looker**

### These Tools

- Turn complex numbers into a story that people can understand
- Help stakeholders come up with conclusions that lead to informed decisions and effective business strategies
- Have Multiple Features
  - **Tableau's** simple drag and drop feature lets users create interactive graphs in dashboards and worksheets
  - **Looker** communicates directly with a database, allowing you to connect your data right to the visual tool you choose

A Career as a data analyst also involves using programming languages like **R** and **Python**, which are used a lot for *Statistical Analysis, Visualization*, and other data analysis

## Key Takeaway

You have a lot of tools as a data analyst.