

Data visualization, Amazon QuickSight

Amazon QuickSight

Amazon QuickSight is a cloud-scale business intelligence (BI) service that you can use to deliver easy-to-understand insights to the people who you work with, wherever they are. Amazon QuickSight connects to your data in the cloud and combines data from many different sources. In a single data dashboard, QuickSight can include AWS data, third-party data, big data, spreadsheet data, SaaS data, B2B data, and more. As a fully managed cloud-based service, Amazon QuickSight provides enterprise-grade security, global availability, and built-in redundancy. It also provides the user-management tools that you need to scale from 10 users to 10,000, all with no infrastructure to deploy or manage.

QuickSight gives decision-makers the opportunity to explore and interpret information in an interactive visual environment. They have secure access to dashboards from any device on your network and from mobile devices.

When you import data into a dataset rather than using a direct SQL query, it becomes SPICE data because of how it's stored. SPICE is the Amazon QuickSight Super-fast, Parallel, In-memory Calculation Engine. It's engineered to rapidly perform advanced calculations and serve data. In Enterprise edition, data stored in SPICE is encrypted at rest.

When you create or edit a dataset, you choose to use either SPICE or a direct query, unless the dataset contains uploaded files. Importing (also called ingesting) your data into SPICE can save time and money:

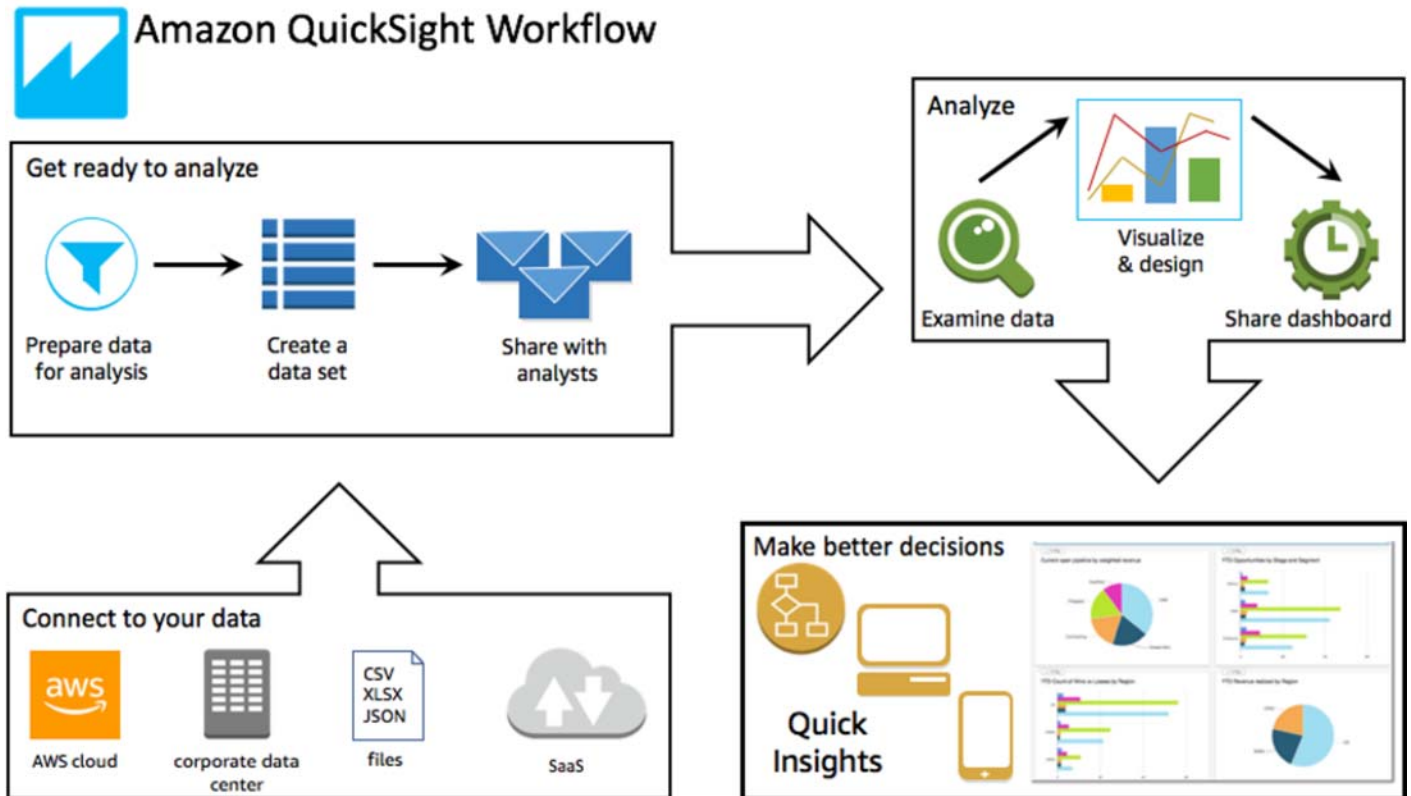
- Your analytical queries process faster.
- You don't need to wait for a direct query to process.
- Data stored in SPICE can be reused multiple times without incurring additional costs. If you use a data source that charges per query, you're charged for querying the data when you first create the dataset and later when you refresh the dataset.

Read more about SPICE here: <https://docs.aws.amazon.com/quicksight/latest/user/spice.html>

Using Amazon QuickSight, you can access data and prepare it for use in reporting. It saves your prepared data either in SPICE memory or as a direct query. You can use a variety of data sources for analysis. When you create an analysis, the typical workflow looks like this:

- Create a new analysis.
- Add new or existing datasets.
- Choose fields to create the first chart. QuickSight automatically suggests the best visualization.

- Add more charts, tables, or insights to the analysis. Resize and rearrange them on one or more sheets. Use extended features to add variables, custom controls, colors, additional pages (called sheets), and more.
- Publish the analysis as a dashboard to share it with other people.



Read more here: <https://docs.aws.amazon.com/quicksight/latest/user/how-quicksight-works.html>

Augment data with Amazon SageMaker

You can augment your Amazon QuickSight Enterprise edition data with SageMaker machine learning models. You can run inferences on data stored in SPICE imported from any data source supported by Amazon QuickSight.

Find more information here: <https://docs.aws.amazon.com/quicksight/latest/user/sagemaker-integration.html>