Relational Database Management Systems (RDBMS) leveraging SQL are schema oriented (Blaha *et al*., 1994), i.e., they follow a set, tabular structure complying with a pre-defined schema, as in finance. Conversely, unstructured and Big Data need adaptable DBs that are schema-less, defined as NoSQL (‘Not Only SQL’) DBs (Begoli *et al*., 2016). SQL DBs are vertically scalable (Blaha *et al*., 1994), thus requiring hardware of increasing capacity and higher costs with increases in the volume of data and resulting in poor performance (Blaha *et al*., 1994).

Instead, NoSQL DBs are not constrained by a pre-set schema, scale horizontally (Begoli *et al*., 2016), and are continuously available to handle unstructured and Big Data data, including key-value pairs, document DBs, column-oriented DBs, and graph DBs (Liu *et al*., 2014). In particular, Graph DBs are online DBs with CRUD operations applied to data stored as nodes and edges/relationships in a knowledge graph-like manner (Singh & Kaur, 2015; Angles *et al*., 2017), e.g., for use cases from population health (Gamal *et al*., 2021) to fraud detection (Bajer *et al*., 2021), respectively defining an entity and how multiple entities related to one another.

Traversing a Graph DB is computationally efficient by graph processing (Bajer *et al*., 2021; Gamal *et al*., 2021). Relationships and business rules can be created and modified easily in a Graph DB (Angles *et al*., 2017; Bajer *et al*., 2021; Gamal *et al*., 2021), whereas in a RDBMS it would be hard to maintain them as constrained to abide by pre-defined schemas. Companies leveraging Big Data at scale worldwide, such as Google and those owning social media platforms (Desai *et al*., 2019; Hryhoruk & Leung, 2021), e.g., LinkedIn and Meta, use Graph DBs to handle such significant volumes of data and draw insights that generate value by representing them as networks.

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