

There are several databases in use today, nearly all businesses currently operating use a database in some capacity. Without the existence of databases it would be nearly impossible to access information at the rate we do. Even social media websites such as Twitter, Facebook, and LinkedIn. If a closer look is taken at company such as Facebook, and look into their data, it can be noted that they have one of the largest MySQL database clusters imaginable. If I were to create my own basic social media platform only a fraction the size of Facebook, its database architecture would be broken down tables such as accounts, friends, messages, events, etc. The accounts table would contain basic information like the end-users email address, password, first name, last name, and gender, in addition to other rudimentary information necessary to the setup of the users profile. Once this data is stored within the database it can be considered as strictly data and not information. Once data is transformed in a manner that reveals its significance, it can be considered as information. One way to turn data into information is by asking questions, or in our case a query. A query groups data based on the parameters set by the user asking a question. Once this data is collected it's considered to be information. If the designers of a basic social media platform needed to figure out what percentage of users are female, in attempt to generate advertisements that specifically cater to the needs of a specific end user, they will need to write a query. The data gathered in response to the query can then be considered information because it displays significance within the context of the question being asked.

Data plays a vital role within all sectors and functions of the global economy. Once data is collected and manipulated it can be leveraged in order to influence certain aspects of business. Several corporations spend millions in revenue every year analyzing their data in order to identify solutions that might potentially improve decision making, minimize risks, increase profit margins, improve customer experience, or even enhancing productivity. With these potential benefits, it makes sense to put so much effort into the analytics of data.