SQL, or Structured Query Language is the most used database language today. It is used in relational database management systems such as Oracle, Sybase, Microsoft SQL Server, Access, Ingres, and the most popular, MySQL to name a few, as the human interface for command and control. There are commands that are standard across all these platforms, such as “Select”, “Insert”, “Update”, “Delete”, “Create”, and “Drop”, but many systems also add their own proprietary extensions.

Appearing for the first time in 1974, four years after the concept was first described by Dr. Edgar F. “Ted” Codd, SQL has been the standard for database management for just over thirty years. Like so many things, IBM first released SQL’s predecessors. In 1978 they released System/R, then in 1986, they developed the first prototype relational database, before Microsoft launched the first version of SQL in 1989. In 1999 SQL 3 was launched, introducing features such as triggers and object orientation. SQL 2003 introduced window functions and XML-related features, SQL 2006 brought support for the XML Query Language, and SQL 2011 included improved support for temporal databases.

There are three phases to every query once it reaches the database. These are Parsing, where the syntax of the query is checked, Binding, where the query’s semantics are checked, and Optimization, where the query execution plan is generated. A relational database can be thought of as a vast spreadsheet, with data arranged in rows and columns. SQL gives us the ability to search and sort the data stored here on a large or small scale, and to manipulate that data efficiently.

References:

Gupta, S. (2022, June 21). *What is SQL & How Does It Work? A guide to structured query language*. Springboard Blog. Retrieved June 30, 2022, from https://www.springboard.com/blog/data-analytics/what-is-sql/

Peterson, R. (2022, June 18). *What is SQL? learn SQL Basics, SQL full form & how to use*. Guru99. Retrieved June 30, 2022, from https://www.guru99.com/what-is-sql.html

Staff, S. Q. L. C. (2022, February 3). *What is SQL (structured query language)? - SQLCOURSE*. SQL Course. Retrieved June 30, 2022, from https://www.sqlcourse.com/beginner-course/what-is-sql/