

NoSQL databases are ideal when it comes to handling unstructured data. We see unstructured data a great deal in our day-to-day lives. From emails to social media to the images on your phone, all of it is data that requires more advanced mechanisms in order to store and retrieve it because there is no specified format. NoSQL stands for “not only structured query language” and is a non-relational database and is the best fit for hierarchical work. This kind of database is optimal for massive volumes of data or Big Data. We often handle Big Data in class, a kind of data that is too large to be analyzed by traditional methods and softwares. We deal with both unstructured and structured data but SQL, another software we use to connect with databases, that we used in class, is great for structured data. However, SQL is a relational database that requires a stricter format and data type. Additionally, it stores data in tables rather than where NoSQL will store it in a document format. Fundamentally, SQL is ideal for simplistic data storage and retrieval. We have used MongoDB Compass in this course, a NoSQL database, and it supports all structured, semi-structured and unstructured data. The architecture of MongoDB makes it a lot easier for students like us to comprehend the retrieval of data in an aggregated manner. As we enter our queries one at a time into a stage, we begin an aggregation pipeline which would display the chronological order of the clauses that we used. I realized the biggest struggle hopping from MySQL Workbench to MongoDB was trying to join different tables or collections of data. SQL had a specific query (JOIN) to complete this task; however, MongoDB requires you to break it down and do it “manually” in order to connect collections. We have spent a great amount of time this semester discussing the information architecture of an organization. All in all, being able to utilize relational and nonrelational database systems in class was an amazing experience to get a hands-on approach at data extraction. [346]