**Week 3 Discussion**

Find a practical article on using hash tables. Why do you think this has become a huge part of tech interviews for data scientists? Your response should be one paragraph and you need to respond to three other student’s posts.

Hashing is a helpful technique that involves mapping keys and values into a hash table. This allows for faster access to the components of the table. It is also used for other purposes, such as securing passwords to prevent data breaches. Hashing is used in password storage to transform passwords into data that can’t be converted back into the original password. This type of storage prevents attackers from accessing entire tables of usernames and passwords. Instead, they can only access a table of hashed passwords that cannot be converted to original ones. Hash tables have become a massive part of data scientists' tech interviews because they allow quicker data access and modification. Instead of searching through data for an element, if you know the associated hash key, you can perform searches and changes in constant time, no matter how large the dataset is.

Sources:

Arias, D. (2019, September 30). *How to hash passwords: One-way road to enhanced security*. Auth0. https://auth0.com/blog/hashing-passwords-one-way-road-to-security/

Linkedin. (2023, July 6). *What are some examples of using hash tables to optimize your code?*. Hash Tables: Examples, Challenges, and Interview Tips. https://www.linkedin.com/advice/0/what-some-examples-using-hash-tables-optimize