Information Systems Discussion

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A graph database is a structure through which data is stored in the form of graphs. A graph normally consists of nodes and edges while in the graph database the same principle is used but the data from the databases is stored in nodes and edges. The edges may represent the relationship between the nodes. This whole setup gives a faster performance as compared to the traditional relational database because the data retrieval would be complicated mainly due to the relationship but in a graph database, the relationships are essentially part of the database hence easier to traverse and find the required data. Social networks gain benefits from these as graphs are a form of network and utilizing it benefits the social media platforms for fast query replies, analytics and data storage.

Social media is a connection of users with particular relations between them thus making the graph database fit exactly on the whole social media network structure (Mattson & Qiu, 2017). Usually, the relationship in the relational database would require complex calculation especially the many to many structures. While in the case of graphs, the nodes just need to be traversed until the right option is selected and retrieved. As all the social media platforms thrive in producing the most efficient and quick response to the users from among millions of records, therefore time-saving is necessary and thus the use of graphs databases has become the main go-to for these platforms. The query response time is much faster then relation database queries which is now slowly becoming obsolete. While the network structure keeps changing therefore relational database would require major modifications and would consume much more time which is the last thing these platforms want.

**References**

Mattson, G. A., & Qiu, L. (2017). *Graph database for services planning and configuration in network services domain*. Google Patents.