Analysis of Cyber Activities of Potential Business Customers Using Neo4j Graph Databases

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Abstract : Data analysis is an important aspect of business performance. With the application of artificial intelligence within databases, selecting a suitable database engine for an application design is also very crucial for business data analysis. The application of business intelligence (BI) software into some relational databases such as Neo4j has proved highly effective in terms of customer data analysis. Yet what remains of great concern is the fact that not all business organizations have the neo4j business intelligence software applications to implement for customer data analysis. Further, those with the BI software lack personnel with the requisite expertise to use it effectively with the neo4j database. The purpose of this research is to demonstrate how the Neo4j program code alone can be applied for the analysis of e-commerce website customer visits. As the neo4j database engine is optimized for handling and managing data relationships with the capability of building high performance and scalable systems to handle connected data nodes, it will ensure that business owners who advertise their products at websites using neo4j as a database are able to determine the number of visitors so as to know which products are visited at routine intervals for the necessary decision making. It will also help in knowing the best customer segments in relation to specific goods so as to place more emphasis on their advertisement on the said websites.

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