# Justification for Choosing Entities for MongoDB Conversion

Name

Institution

Course

Professor

Date

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## Customer Entity

* **Dynamic Data:** Customer information usually consists of dynamic data such as preferences, addresses, and telephone numbers, which may vary from customer to customer and may even vary with time (MongoDB, 2022). The information may persist in MongoDB without any change in schema or addition of additional columns, as would be expected in a conventional SQL database.
* **Customer Preferences:** Preferences for types of vehicles—e.g., make, model—or features like SUVs or leather upholstery can be easily managed using MongoDB, which natively supports nested data. The flexibility afforded by this allows us to add or change preferences without having to change a rigid table structure and enables personal marketing.

## Vehicle Entity

* **Complex and varied data:** each vehicle will have attributes like Make, Model, Year, Color, EngineSize, and customizable features. Upholstery and Type (SUV, Sedan, etc.), for instance. In a relational database, dealing with additional specifications or options that each particular vehicle type may have would involve additional tables or columns and hence more complexity. The MongoDB way allows us to store these specifications directly as part of each document, and is hence more natural (Adžić, 2024).
* **Scalability:** MongoDB is a perfect document model that allows scaling up the vehicle entity with new attributes or features as and when required, without any complex join or table alterations. For example, assuming new vehicle options, it can be naturally included in the document structure level itself. The selection of these entities allows MongoDB collections for Customer and Vehicle to better support evolving business needs, simplify data management, and provide for scalability, which in their own right justify a document-based NoSQL solution.

# References

Adžić, T. (2024, February 27). *Introduction to MongoDB - Tanja Adžić - Medium*. Medium; Medium. https://adzic-tanja.medium.com/introduction-to-mongodb-a1c574b331e2

MongoDB. (2022, December 28). *Mongo model for dynamic fields*. MongoDB Developer Community Forums. https://www.mongodb.com/community/forums/t/mongo-model-for-dynamic-fields/206150