



## Chapter 5: Conclusion

# Epilogue

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Congratulations on completing M320: Data Modeling!

The knowledge you have acquired will help you create more robust data models and efficient queries using MongoDB.

There are many more advanced topics and additional subjects we did not explore in this course. If you want to begin learning more about these, consult the following list of resources.

### Sharding

*Sharding* is an extremely important topic for large-scale systems that will impact your design decisions. Most systems do not reach sizes that require *Sharding*. However if your system is already sharded or you are sure that your system will need to be, you should get familiar with the main concepts of *Sharding*. Here are some important reads on *Sharding*:

- [Documentation on Sharding](#)
- [Choosing a Shard Key](#)

### Query Effectiveness

We taught you to think early about your queries and to model based on your system's workload.

Once you've implemented your schema design, how do you assess the effectiveness of your queries? Consult the following resources to validate that your queries are working as expected, using the right indexes, and are not running too slowly:

- [Indexing Strategy](#)
- [Analyze Query Performance](#)

### Document and Schema Validation

We mentioned that although MongoDB uses a flexible schema, you can still enforce constraints on your data models. You can add many different kinds of validation, such as field type, value, and presence.

To know more about *Schema Validation*, please refer to the following resources:

- [Documentation on the Schema Validation topic.](#)

### Transactions in MongoDB

We mentionned a few times that MongoDB now supports transactions. To know more about them, please refer to the following resources:

- [Documentation on Transactions](#)
- [Videos explaining their implementation](#)

### Schema Design Patterns

To see additional information on our Schema Design Patterns, please refer to the following resources:

- [Series of blogs on Schema Design Patterns](#)
- [Video from MongoDB World on Schema Design Patterns](#)