Data Modeling:

Data Modeling is how an application stores data in each database related to the real-world entities.

Relational Databases:

Optimized for storage with data normalization.

Each table has a strict schema.

Need more compute power to retrieve data from multiple tables.

Performance may degrade as the database scales.

NOSQL Databases:

Optimized for compute rather than storage.

Flexible schema.

Designed for highly scalable applications.

It will give duplicate values of data and minimize tables joins. It reduces computer power than storage.

DynamoDB:

NOSQL offering from AWS.

Provides consistent performance at any scale.

DynamoDB Modeling:

Requires a shift in thinking form relational data modeling.

Don’t fake a relational model.

Must identify the **access patterns** before table design.

Most applications need only one table.

Identify primary keys and indexes to minimizes the number of requests to DynamoDB to satisfy each access pattern.