# Amazon DynamoDB: Building NoSQL Database-Driven Applications

### Course Contents -

### Relational and NoSQL Databases

- SQL, NoSQL and DynamoDB
  - Relational databases and the problems that need solving
  - How most NoSQL databases work
  - Introduction to DynamoDB
  - How DynamoDB works and how it's different than other NoSQL databases
  - o Basic DynamoDB code operations

# Recovery, SDK Exploration, Monitoring and Partitioning

- Recovery and SDKs
  - Backing up and restoring a DynamoDB table
  - DynamoDB API Working with datasets
- Monitoring
  - Monitoring DynamoDB
- Partition keys
  - o Partition keys and their impact on performance

## **Security and State**

- Working with DynamoDB Security
  - Encryption and Compliance
  - Access controls Identity and Access Management (IAM) and Virtual Private Cloud (VPC) end points
- State
  - Global tables
  - Stateless applications
  - Streams
- Acceleration
  - DynamoDB Accelerator

## Diving deep and best practices

- Query Optimization
  - Optimistic Locking
  - LSI and GSI
  - DynamoDB API writing better queries
- Schema Design
  - Single table
  - DynamoDB transactions and versioning