



Dear Student,

Based upon your enquiry we are pleased to send you the course curriculum for Mongo DB.

Given below is the brief description for the course you are looking for:

MONGODB Course Curriculum

1: Introduction to BIG DATA and different frameworks.

An overview of BIGDATA and short brief about frameworks like Hadoop and spark.

2 : Introduction to NoSQL, JSON and BSON

Getting started with the NOSQL databases where you can store the data item individually with a unique

key rather than rows and column structure of RDBMS. You will be introduced to JSON and BSON formats of storing the data.

NoSQL Databases and their Benefits

ACID and BASE Properties

JSON and BSON documents

3: MongoDB Introduction

Acquire the basic knowledge of storing data in the form of collections and documents. You will be

introduced to the Mongo Shell. Also, you will get to know the terminologies used in MongoDB.

Introduction to MongoDB and its Features

Database, Collection and Documents

Various Data Types in MongoDB



4: CRUD Operations

CRUD operations like how to create, read, update and delete the data of any database. You will learn how to add collections and documents in any database using different modification queries.

CRUD Operations

Database Operations

Read and Write Operations

5 : Data Modeling

Designing the schema and the structure of the documents. You will learn how the documents can be stored in embedded form and how data is stored in GridFS. Also, you will get to know about different data modeling types.

GridFS

Data Modeling Types

6: Designing Applications

Knowing the concepts used in indexing and aggregation, basic introduction to indexes and their types.

Also, you will get to know how indexes are used in retrieval of data and how aggregation framework is

Indexes and their Types

Capped and TTL Collection

Aggregation Framework and Pipeline

7: Replication

Learn what replication is and how it provides high availability, and different replica set nodes with their

components. You will also learn how to set up the replication environment. Also, you will get to know



how to configure and reconfigure the replica sets.

Replication Concept

Components of Replication

Administration

8: Sharding

How to scale with MongoDB, the components of a cluster, how to configure sharding and the basics of

how sharding components interacts with your application. You will also learn how to set up config

servers, shards, mongos processes and how to perform administrative tasks on all parts of a cluster. You

will also understand how MongoDB distributes data and inspects the state of a cluster.

Sharding Architecture

Choosing Shard keys and Auto-sharding

Sharding with Replication

9: Administration and Security

Learn administrative tasks and requirements with respect to MongoDB deployments. You will also learn

approaches for backing up MongoDB databases, and backup and restoration for MongoDB instance. You

will also learn about Security practices in MongoDB deployment authentication and authorization to

Seeing what your application is doing

Monitoring for MongoDB



Backup and Security

10: Java API and Web Application with MongoDB

Learn about MongoDB Drivers, also have an introduction of what MongoDB Java driver is. You will also

learn some CRUD operations with Java API and how various components work together in MongoDB

project implementation.

Connecting Java and MongoDB

CRUD Operations and Java Types

Application with Java