POSITIVE QUADRANT
T E C H N O L O G I E S
SERVING INFORMATION WORLDWIDE

Website: Positivequadrant.in
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MongoDB

Programming & development

Course Curriculum

Basic – 45 Hours

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MongoDB

Module 1 : Introduction to MongoDB

Introduction to Mongo DB

Why use MongoDB?

Installation of MongoDB

Module 2 : Aggregation

Introduction to Aggregation

Syntax

Parameters

Count, Sum, Average, Match and Operations with arrays

Module 3 : Backing up and Restoring Data

Mongoimport with JSON

Mongoimport with CSV

Basic mongodump of local default mongod instance

Basic mongorestore of local default mongod dump

Module 4 : Bulk Operations

Converting a field to another type

updating the entire collection in Bulk.

Module 5 : Collections

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Create a Collection

Drop Collection

Starting mongo with a specific config file

Module 6 : CRUD Database Operations

Syntax

Create, Read, Update and Delete Databases

More Update operators

List all databases

List all collections in database

Module 7 : Indexes

Syntax

Single field

Compound

List

Index Creation Basics

Module 8 : Hashed Indexes

Dropping / Deleting an Index

Get Indices of a Collection

Unique Index

Sparse Indexes and Partial Indexes

Difference between Sparse Indexes and Partial Indexes

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Module 9 : MongoDB Java

Create a tailable cursor

Create a database user

Fetch Collection data with condition

Module 10 : Managing MongoDB

Managing MongoDB

Mongo as a Replica Set

Check MongoDB Replica Set states

Module 11 : Mongo as Shards

Sharding Environment Setup

Config Server

Replica Sets

Mongos

Module 12 : MongoDB - Configure

Introduction

Create the Root Certificate

Generate the Certificate Requests and the Private Keys

Deploy your ReplicaSet for Mutual SSL / Mutual Trust

No Mutual SSL

With Mutual SSL

Module 13 : MongoDB Aggregation (Advanced)

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Aggregate query

Match , Project, Group , Sum, Average, Minimum and Maximum

Minimum with Maximum

Push and addToSet

Module 14 : MongoDB Aggregation (Advanced)

Boolean Aggregation operator in projection

Boolean Aggregation operator in match

Left Outer Join with Aggregation ($Lookup)

Module 15 : MongoDB Authorization Model

Introduction

Build-in Roles

Database User Roles

Module 16 : Pluggable Storage Engines

MMAP

WiredTiger

In-memory

Mongo-rocks

Module 17 : MongoDB Python

Syntax

Parameters

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Module 18 : Python Driver

Connect to MongoDB using pymongo

PyMongo queries

Update all documents in a collection using PyMongo

Module 19 : Querying for Data

Find()

FindOne()

Query Document – Using AND, OR AND IN Conditions

Module 20 : Projection

Find() method

Limit, skip, sort and count the results of the find() method