

MongoDB Course Details

By A1Training(PT)

Course Name	MongoDB
Category	Database
Mode Of Classes	Online/Offline
Demo Classes	At Your Convenience
Training Methodology	20% Theory & 80% Practical
Course Duration	30-35 Hours
Class Availability	Weekdays & Weekends
For Demo Class	Call - +91-8368 979712, 63804 86914 Email ID - <u>a1projecttraining@gmail.com</u>
Why A1Training?	A1 Means Success

- Training by highly experienced and certified professionals
- No slideshow (PPT) training, fully Hand-on training
- Interactive session with interview QA's
- Real-time projects scenarios & Certification Help
- Most competitive & affordable course fees
- Placement support for all courses
- List of established & satisfied clients & students (Visit our website for reviews).



Introduction to MongoDB

- NoSQL Databases
- CAP Theorem
- Features of MongoDB?
- Installation overview
- Documents
- Collections
- Databases
- Starting and stopping MongoDB

Introduction to Mongo Shell

- Basic commands in Mongo shell
- Data Types in Mongo shell
- Inserting and saving documents
 - Batch Insert
 - Insert Validation
- Removing documents
- Updating documents
 - Update top level fields
 - Update an embedded field
 - Update multiple documents
 - Replace a document

Querying data in Mongo Shell

- Introduction to find command
- Limitations in querying data
- Query for All Documents in a Collection
- Query by a Top Level Field
- Query by a Field in an Embedded Document
- Query by a Field in an Array
- Specify Conditions with Operators
- Combine Conditions

Data Aggregation

Indexes

Replication

Sharding

- Pipeline Operations
 - \$match
 - \$project
 - \$group
 - \$unwind
 - \$sort
 - \$limit
 - \$skip
- Integrating MapReduce and MongoDB
 - Example 1: Finding All Keys in a Collection
 - Example 2: Categorizing Web Pages
- Aggregation Commands
 - \$count





- \$distinct
- \$group
- Create a Single-Field Index
- Create a compound index.
- Indexing Embedded Documents
- Indexing Arrays
- When Not to Index
- Types of Indexes
 - Unique Indexes
- Sparse Indexes
- Introduction to Replication
- Replication in MongoDB
 - Replica Set Elections
 - Rollbacks during Replica set Failover
 - Heartbeats
 - Syncing
- Replica Set Members
 - Primary
 - Secondary
 - Arbitary
- Replica Set Read and Write Semantics
- Consistency Considerations
- Introduction to Sharding
- Purpose of sharding
- Sharded Cluster Components
- Sharding in MongoDB
- Data Partitioning
- Maintaining a Balanced Data Distribution
- Choosing a shard key
 - Shard Key Limitations and guidelines
- Adding shards from a replica set

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