

MongoDB

Workshop Details:

Duration:	3 Days
Objective:	To learn MongoDB in depth and use it effectively to query MongoDB Data
Training Methodology:	<p>The workshop will follow Synergetics methodology of</p> <ul style="list-style-type: none"> Concept Visualization Active Experimentation Application Development <p>The workshop will be 100% Hands-On with each participant having access to system during the session</p>

Setup Requirements

Hardware and Software Requirements:	<p>Participant's as well as Trainer's Machine are required to have :</p> <p>Participant's as well as Trainer's Machine are required to have :</p> <p>Hardware / Software</p> <ul style="list-style-type: none"> ■ Intel® Core™2 Duo Processor ■ 4 GB RAM minimum ■ 100 GB free in the hard disk <p>Development tools and SDK</p> <ul style="list-style-type: none"> ■ MongoDB 2.4.6
Training Lab Requirements:	<p>Whiteboard 6 feet by 4 feet (minimum)</p> <p>Whiteboard markers – Red, Blue, Green, Black</p> <p>Video Projector (1024 X 768 resolutions)</p>

Course Content

Day 1	<ul style="list-style-type: none"> ➤ NOSQL Basics <ul style="list-style-type: none"> ■ Introduction to NOSQL ■ Need for NOSQL Database ■ Characteristics of NOSQL Databases ➤ Overview of MongoDB <ul style="list-style-type: none"> ■ What is MongoDB ■ History of MongoDB ■ Features of MongoDB. ➤ Getting Started <ul style="list-style-type: none"> ■ Documents ■ Collections ■ Databases ■ Getting and Starting MongoDB ■ MongoDB Shell ➤ Creating , Updating and Deleting Documents <ul style="list-style-type: none"> ■ Inserting and Saving Documents ■ Removing Documents ■ Updating Documents <ul style="list-style-type: none"> ○ Document Replacement ○ Using Modifiers ○ Upserts ○ Updating Multiple Documents ➤ Querying <ul style="list-style-type: none"> ■ Introduction to find <ul style="list-style-type: none"> ○ Specifying which keys to return ○ Limitations ■ Query Criteria <ul style="list-style-type: none"> ○ Query Conditionals ○ OR Queries ○ \$not ○ Rules for Conditionals ■ Querying Array <ul style="list-style-type: none"> ○ \$all ○ \$size ○ \$slice ■ Querying Embedded Documents ■ Cursors <ul style="list-style-type: none"> ○ Limits ○ Skips ○ Sorts
Day 2	<ul style="list-style-type: none"> ➤ Indexing <ul style="list-style-type: none"> ■ Introduction to Indexing ■ Unique Index ■ Index Administration ➤ Aggregation <ul style="list-style-type: none"> ■ Count ■ distinct ■ Group

	<ul style="list-style-type: none"> ▪ MapReduce. ➤ Advanced Topics <ul style="list-style-type: none"> ▪ Database Commands ▪ Capped Collections ▪ GridFS: Storing Files ▪ Server Side Scripting
<p style="text-align: center;">Day 3</p>	<ul style="list-style-type: none"> ➤ Administration <ul style="list-style-type: none"> ▪ Starting and Stopping MongoDB ▪ Monitoring ▪ Security and Authentication ➤ Replication <ul style="list-style-type: none"> ▪ Master- Slave Replication ▪ Replica Sets ▪ Performing Operations on a Slave ➤ Sharding <ul style="list-style-type: none"> ▪ Introduction to Sharding ▪ AutoSharding ▪ Setting Up Sharding ▪ Sharding Administration