Learning NoSQL database using Mongodb

**Duration**:

* 2 days

**Software requirements:**

* MongoDB 3.2.10
* JDK 1.7 or higher
* Eclipse IDE

**Detailed course outline:**

* Overview of NoSQL databases
  + Relational v/s NoSQL databases
  + When to use Relational/NoSQL?
  + Examples of NoSQL databases
  + The JSON Data Format
  + BSON Data Format
  + Advantages of BSON
* MongoDB Concepts
  + Servers
  + Starting and Stopping MongoDB
  + Connections
  + Databases
  + Collections
  + Documents
* Querying MongoDB
  + Query Expression Objects
  + Query Options
  + Cursors
  + Mongo Query Language
* Indexing and Aggregation
  + Introduction to Indexing
  + Scaling Indexes
  + Indexing Keys in Embedded Documents
  + Unique Indexes
  + Compound Indexes
  + Changing Indexes
  + Geospatial Indexing
  + Aggregation
  + Count and distinct,
  + Group
  + MapReduce
* Performance
  + Sharding
  + Replica sets
* Using Java with MongoDB
  + Setting up MongoDB and Java
  + Setting up Eclipse to work with MongoDB
  + Make a Connection
  + MongoClient
  + Get a Collection
  + Insert a Document
  + Add Multiple Documents
  + Count Documents in A Collection
  + Query the Collection
  + Find the First Document in a Collection
  + Find All Documents in a Collection
  + Get A Single Document with a Query Filter
  + Get a Set of Documents with a Query
  + Get a Set of Documents with a Query
  + Projecting fields
  + Updating documents
  + Deleting documents
* Bulk operations
  + Get A List of Databases
  + Drop A Database
  + Create A Collection
  + Get A List of Collections
  + Drop A Collection
  + Working with Databases and Collections
  + Creating documents
  + Working with aggregation API
  + GridFS: Storing Files