<Course Name>

**Instructor
Notes:**

NoSQL and MobgoDB
Lesson 00:

Capgemini

Course Goals and Non Goals

Course Goals

- At the end of this program, participants will gain an understanding of:
  - Understanding of NoSQL basics
  - Why NoSQL
  - Different NoSQL DBMSAWS basics
  - Introduction to MongoDB .
  - Installation of MongoDB
  - Query management in MongoDB

Course Non Goals

- This program does not attempt:
  - To demonstrate Continuous Deployment and Continuous Monitoring tools like puppet, CHEF and Nagios

Pre-requisites

List the Course Pre-requisites
- Knowledge of JSON
- Few knowledge on RDBMS concept
- Spring Java knowledge

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Intended Audience

This course is suitable for

- Developers, Test Engineers, Designers, Administrators. new to Java Cloud technology who will work on NoSQL Database.

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Day Wise Schedule

Day 1
- Lesson 1:Introduction to NoSQL
- Lesson 2: Introduction to MongoDB
- Lesson 3: MongoDB CRUD Documents
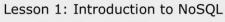Day 2
- Lesson 3: MongoDB CRUD Documents
- Lesson 4:Aggregation

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Lesson 1: Introduction to NoSQL
- Evaluation of NoSQL
- Why NoSQL
- Pros and Cons of NoSQL Databases
- NoSQL Vs Relational DB
- Data store types
- Different NoSQL DBMS

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Lesson 2: Introduction to MongoDB

- Why MongoDB
- When not to use
- Documents, Collections and Databases
- Setting up MongoDB
- Starting and Stopping MongoDB server
- Creating and dropping database
- Creating and dropping collections
- DataTypes
- Using MongoDB Shell

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Lesson 3: CRUD Documents

- Inserting and Saving Documents
- Removing Documents
- Updating Documents
- Using Modifiers ($inc, $set,$push,$pop,..)
- Query Documents-Query Criteria
- Query Documents-Cursors
- Query Documents-Cursors(Limits, Skips, and Sorts)

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Lesson 4: Aggregation
- Projection using Mongo Template in Spring
- The Aggregation Framework
- Pipeline Operations
- Pipeline Operations- $project

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References

Books:
- MongoDB: Definitive Guide, 2nd Edition

Websites:
- https://university.mongodb.com/courses
- http://en.wikipedia.org/wiki/Big_data
- http://docs.mongodb.org/manual/
- http://docs.mongodb.org/manual/reference/sql-aggregationcomparison/
- http://docs.mongodb.org/manual/core/data-modeling-introduction/
- https://university.mongodb.com/ - free online MongoDB courses

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Other Parallel Technology Areas

- HBase
- Cassandra