MongoDB in Action Syllabus

Semester: One (1) Summer Term lasting 3 weeks between Fall and Spring terms/semesters. / 2020

Instructor Information

Instructor	Email	Office Location & Hours
Esmaeil Sadeghi	EsmaeilSadeghiJob@gmail.com	Tehran, 4 hours a week

General Information

Description

MongoDB is a document database designed for ease of development and scaling.

Course Materials

Required

NoSql

Course Schedule

Week	Topic	Description
Week 1	Installation	Install MongoDB Community Edition	Upgrade MongoDB Community to MongoDB Enterprise
Week 2	The mongo Shell	Configure the mongo Shell	Access the mongo Shell Help	Write Scripts for the mongo Shell
Week 3	MongoDB CRUD Operations	Insert, Query, Query an Array of Embedded Documents	MongoDB CRUD Concepts
Week 4	Aggregation	Aggregation Pipeline	Map-Reduce	Aggregation Reference
Week 5	Data Models	Data Modeling Introduction	Schema Validation
Week 6	Transactions	Drivers API	Transactions and Operations
Week 7	Indexes	Single Field Indexes	Compound Indexes	Multikey Indexes	Text Indexes	Indexing Reference
Week 8	Security	Security Checklist	Enable Access Control	Authentication	Implement Field Level Redaction
Week 9	Change Streams	Change Streams Production Recommendations	Change Events
Week 10	Replication	Replica Set Members	Replica Set Arbiter	Replica Set Oplog	Replica Set Data Synchronization
Week 11	Sharding	Sharded Cluster Components	Shard Keys	Zones	Deploy a Sharded Cluster
Week 12	Administration	Operations Checklist	Development Checklist	MongoDB Performance	MongoDB Backup Methods
Week 13	Storage	Storage Engines	Journaling	GridFS
Week 14	Frequently Asked Questions	MongoDB Fundamentals	Indexes	Concurrency	Sharding with MongoDB
Week 15	Reference	Database Commands	mongo Shell Methods	Configuration File Options