

M101P: MongoDB for Developers

Units	Topics	Effort
Week 1: Introduction & Overview	Overview, Design Goals, the Mongo Shell, JSON Intro, installing tools, overview of blog project. Bottle, Pymongo	Lecture Videos: 2 hours Homework: 2-4 hours
Week 2: CRUD (Creating, Reading and Updating Data)	Mongo shell, query operators, update operators and a few commands	Lecture Videos: 2.5 hours Homework: 2-4 hours
Week 3: Schema Design	Patterns, case studies and tradeoffs	Lecture Videos: 1 hour Homework: 2-4 hours
Week 4: Performance	Using indexes, monitoring and understanding performance. Performance in sharded environments.	Lecture Videos: 2 hours Homework: 2-4 hours
Week 5: Aggregation Framework	Goals, the use of the pipeline, comparison with SQL facilities.	Lecture Videos: 1.5 hours Homework: 2-4 hours
Week 6: Application Engineering	Drivers, impact of replication and Sharding on design and development.	Lecture Videos: 1.5 hours Homework: 2-4 hours
Week 7: Case Studies	Interview with Jon Hoffman, foursquare and interview with Ryan Bubunski, codecademy	Lecture Videos: 1.75 hours