



Mid-term review

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Lecture 1 and 2

- Python variable types
- Mutable and immutable data type
- Loops, and conditions
- Functions, scope arguments, pass by assignment classes, and methods



Lecture 3

- What is a transaction, ACID theory



Lecture 4

- What is NOSQL
- Difference between SQL and NOSQL
- Types of NOSQL databases
- Horizontal and vertical scalability
- Replication (master-slave architecture, and peer-to-peer architecture)
- CAP theorem
- Difference between ACID and CAP theorem
- What is JSON
- MongoDB - data model
- Importing data to MongoDB using JSON and BSON format



Lecture 5

- MongoDB CRUD operations
 - InsertOne, InsertMany, find, updateOne, updateMany
 - comparison operators
 - logical operators
 - Incrementing and decrementing
 - updating matched array elements, rename a specified field, deleting a specified field
 - projection



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