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# *MongoDB Optimization and Performance*

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## **Topics:**

### Indexes and Optimization

- What are indexes?
- MongoDB Index misconceptions
- How indexes are chosen
  - Query planner / Query optimizer
  - Hints and tips
- Reading explain plans \*
- Single field indexes
- Multikey indexes
- Compound index design \*
- Covered queries
- Indexes and performance
  - Limits
  - Best practices
  - Compression
- TTL indexes

### Database Profiling

- Accessing the MongoDB logs
- Finding slow operations using the log
- Enabling the profiler
- Causes of slow operations
- MongoDB Atlas Metrics

#### Intro to Atlas Search and Vector Search

- Atlas Search
- Atlas Vector Search