## **MongoDB Interview Cheat Sheet**

- 1. MongoDB: NoSQL, document-oriented DB storing data as BSON. Flexible, schema-less, scalable.
- 2. MongoDB vs SQL: No tables, document-based, no fixed schema, horizontal scaling.
- 3. CRUD: insertOne(), find(), updateOne(), deleteOne().
- 4. Indexes: Improve query performance. createIndex({field: 1})
- 5. Aggregation: Process/transform data. \$match, \$group, \$sort.
- 6. Relationships: Embedding (nested data), Referencing (ObjectId).
- 7. find() vs findOne(): Multiple vs first matching doc.
- 8. \$lookup: Join collections in aggregation pipeline.
- 9. updateMany(): Update multiple documents at once.
- 10. Performance: Use indexes, projections, avoid unindexed regex.
- 11. Transactions: Multiple ops as single atomic unit.
- 12. deleteOne() vs remove(): deleteOne/deleteMany preferred.
- 13. ObjectId: 12-byte unique \_id (timestamp, machine ID, PID, counter).
- 14. Projection: Select fields to return (e.g., {name: 1, \_id: 0}).
- 15. Schema changes: Schema-less, but enforce via Mongoose in MERN.