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Real-time scenario–based interview questions for **MongoDB Administration, Performance Tuning & Optimization:**

🟢 MongoDB Administration, Performance Tuning & Optimization – 500 Scenario-Based Questions

🔷 Basic Level (0–2 years) – 100 Questions

Installation & Configuration

1. How do you install MongoDB on Linux and configure it for production?
2. How do you enable authentication in a newly installed MongoDB instance?
3. How do you configure a replica set for a single-node test instance?
4. How do you change the default storage path for MongoDB data files?
5. How do you configure MongoDB to listen on specific network interfaces?
6. How do you enable TLS/SSL for secure client connections?
7. How do you enable journaling and what are its performance implications?
8. How do you configure MongoDB to use a custom port?
9. How do you set up a basic MongoDB configuration file (mongod.conf)?
10. How do you tune wiredTigerCacheSizeGB for small vs large RAM machines?

Database & Collection Management

11. How do you create a database and verify its existence?
12. How do you drop a database safely in production?
13. How do you create a capped collection and what are its use cases?
14. How do you modify collection validation rules?
15. How do you rename a collection without downtime?
16. How do you enable sharding for a collection?
17. How do you create indexes efficiently for large collections?
18. How do you list all collections and their stats?
19. How do you check storage size for a database?
20. How do you analyze collection growth over time?

User Management & Security

21. How do you create users with role-based access control (RBAC)?
22. How do you enforce read-only access for reporting users?
23. How do you enable SCRAM authentication for MongoDB users?
24. How do you detect users with expired passwords?
25. How do you audit MongoDB user actions?
26. How do you create admin users with minimal privileges for maintenance tasks?
27. How do you enforce network-based restrictions using bindIp?
28. How do you rotate MongoDB credentials securely?
29. How do you detect unauthorized access attempts?
30. How do you integrate LDAP authentication for MongoDB?

Backup & Recovery

31. How do you take a logical backup using mongodump?
32. How do you restore a database from a backup?
33. How do you perform a point-in-time recovery in a replica set?
34. How do you schedule daily backups without impacting performance?
35. How do you backup only specific collections?
36. How do you monitor backup success/failure?
37. How do you compress MongoDB backups for storage efficiency?
38. How do you restore a single collection from a full backup?
39. How do you ensure backups are consistent in a sharded cluster?
40. How do you validate backup integrity automatically?

Query Performance – Basics

41. How do you identify slow queries using the profiler?
42. How do you use explain() to analyze query execution plans?
43. How do you optimize a query that performs a full collection scan?
44. How do you detect queries causing high CPU usage?
45. How do you index fields used frequently in filters?
46. How do you analyze query patterns for frequently accessed collections?
47. How do you avoid queries returning excessive amounts of data?
48. How do you detect inefficient use of $or queries?
49. How do you optimize queries that use array fields?
50. How do you rewrite aggregation pipelines for efficiency?

Indexing Basics

51. How do you create a single-field index?
52. How do you create a compound index for multiple fields?
53. How do you detect unused indexes?
54. How do you drop duplicate or redundant indexes?
55. How do you create a unique index to prevent duplicates?
56. How do you optimize queries with hashed indexes?
57. How do you use TTL indexes for time-to-live collections?
58. How do you create a wildcard index for dynamic fields?
59. How do you analyze index usage with db.collection.getIndexes()?
60. How do you rebuild indexes without downtime?

Memory & Storage

61. How do you monitor WiredTiger cache usage?
62. How do you adjust wiredTigerCacheSizeGB for high concurrency workloads?
63. How do you detect memory pressure on MongoDB instances?
64. How do you optimize journalCommitInterval for write-heavy workloads?
65. How do you detect storage fragmentation?
66. How do you compact collections safely?

67. How do you monitor disk space usage per database?
68. How do you tune MongoDB to use multiple storage paths?
69. How do you optimize disk I/O for large collections?
70. How do you detect hot shards or hot partitions?

Replication & High Availability

71. How do you configure a primary and secondary replica set?
72. How do you detect replication lag?
73. How do you promote a secondary to primary manually?
74. How do you handle elections in replica sets?
75. How do you add a new member to an existing replica set?
76. How do you remove a failed member safely?
77. How do you configure read preferences for reporting workloads?
78. How do you detect network issues causing replication delays?
79. How do you troubleshoot rollback events?
80. How do you verify replica set consistency?

Sharding Basics

81. How do you enable sharding for a database?
82. How do you choose a shard key?
83. How do you split a chunk manually?
84. How do you balance shards automatically?
85. How do you monitor chunk migrations?
86. How do you detect uneven data distribution?
87. How do you add a new shard to the cluster?
88. How do you remove a shard safely?
89. How do you configure shard tags for data locality?
90. How do you analyze shard utilization stats?

Monitoring & Logging

91. How do you enable profiling for slow operations?
92. How do you analyze logs to detect slow queries?
93. How do you monitor connection counts?
94. How do you detect frequent cursor timeouts?
95. How do you monitor index usage over time?
96. How do you detect excessive page faults?
97. How do you integrate MongoDB logs with ELK stack?
98. How do you monitor memory usage per database?
99. How do you detect write lock contention using logs?
100. How do you configure logging verbosity for production?

🟡 Intermediate Level (3–6 years) – 200 Questions

Query Performance & Aggregation (101–140)

101. How do you optimize aggregation pipelines with $lookup?
102. How do you reduce memory usage in aggregation pipelines?
103. How do you optimize $group operations for large datasets?
104. How do you handle $unwind performance on arrays?
105. How do you rewrite queries using $facet for parallelism?
106. How do you detect blocking operations in aggregation?
107. How do you tune $match stages for early filtering?
108. How do you avoid $project stages causing excessive RAM usage?
109. How do you monitor aggregation cursor usage?
110. How do you analyze execution stats for aggregation pipelines?
111. How do you optimize aggregation with $merge for output collections?
112. How do you design indexes for aggregation-heavy workloads?
113. How do you rewrite queries using $bucket vs $bucketAuto?
114. How do you detect $lookup joins causing collection scans?
115. How do you optimize queries on sharded collections?
116. How do you profile $group memory usage using explain?
117. How do you tune $sort in aggregation pipelines?
118. How do you detect memory spills in aggregation?
119. How do you design pre-aggregated collections for analytics?
120. How do you optimize aggregation queries for reporting dashboards?
121. How do you detect performance regressions after schema changes?
122. How do you use $indexStats for query tuning?
123. How do you monitor long-running aggregation jobs?
124. How do you optimize queries with multiple $lookup stages?
125. How do you detect inefficient pipeline stages?
126. How do you tune $graphLookup queries?
127. How do you design pipelines to minimize disk usage?
128. How do you optimize $redact for access control?
129. How do you optimize pipelines with $sort and $limit together?
130. How do you balance aggregation performance vs memory consumption?
131. How do you detect aggregation stages not using indexes?
132. How do you design multi-stage pipelines for real-time analytics?
133. How do you optimize pipelines for sharded clusters?
134. How do you reduce network overhead for aggregation results?
135. How do you cache frequent aggregation results efficiently?
136. How do you optimize aggregation queries for time-series data?
137. How do you detect suboptimal $match placement in pipelines?
138. How do you minimize blocking operations during aggregation?
139. How do you rewrite aggregation queries for parallelism?
140. How do you monitor RAM usage in aggregation-heavy systems?

141. How do you detect queries not using indexes effectively?
142. How do you design compound indexes for multi-field queries?
143. How do you optimize text search queries with text indexes?
144. How do you balance index overhead vs query performance?
145. How do you detect and remove duplicate indexes?
146. How do you use covered queries to reduce disk I/O?
147. How do you optimize queries with sparse indexes?
148. How do you use partial indexes for selective queries?
149. How do you rebuild fragmented indexes without downtime?
150. How do you monitor index usage over time?
151. How do you design indexes for geospatial queries?
152. How do you optimize queries using hashed indexes in sharded collections?
153. How do you detect index bloat in large collections?
154. How do you choose between single-field and compound indexes?
155. How do you optimize queries using wildcard indexes?
156. How do you analyze explain() output for index usage?
157. How do you balance write performance with index creation?
158. How do you optimize index usage for frequent range queries?
159. How do you design indexes to support aggregation pipelines?
160. How do you detect queries performing collection scans due to missing indexes?
161. How do you optimize $match placement in aggregation pipelines for early filtering?
162. How do you minimize memory usage in $group stages for large datasets?
163. How do you rewrite aggregation pipelines to reduce disk spilling?
164. How do you detect aggregation stages causing long-running queries?
165. How do you optimize $lookup stages to avoid unindexed joins?
166. How do you design pre-aggregated collections for faster reporting?
167. How do you monitor aggregation pipeline execution using explain("executionStats")?
168. How do you optimize $unwind operations for large arrays?
169. How do you tune $sort stages to avoid blocking memory?
170. How do you detect and fix $facet pipelines causing high RAM usage?
171. How do you optimize $graphLookup queries for hierarchical data?
172. How do you use $bucket and $bucketAuto for efficient grouping?
173. How do you monitor $merge stage performance and write conflicts?
174. How do you optimize $project stages to reduce memory footprint?
175. How do you detect $redact operations causing slow queries?
176. How do you rewrite aggregation pipelines to leverage covered indexes?
177. How do you optimize pipelines for sharded collections?
178. How do you cache frequently used aggregation results for faster response?
179. How do you analyze and optimize $expr usage in aggregation queries?
180. How do you implement parallelism in aggregation pipelines to reduce execution time?

Replication & High Availability (181–200)

181. How do you monitor replication lag in large replica sets?
182. How do you troubleshoot rollback operations in a replica set?
183. How do you promote a secondary to primary with minimal downtime?
184. How do you detect network partitions affecting replication?

185. How do you add hidden or delayed members for PITR purposes?
186. How do you handle elections in a multi-data center setup?
187. How do you configure write concerns for high availability?
188. How do you optimize read preferences for reporting workloads?
189. How do you detect replication bottlenecks using logs?
190. How do you handle members that fall behind in replication?
191. How do you resync a secondary without rebuilding from scratch?
192. How do you monitor replication oplog size and growth?
193. How do you prevent replication lag during bulk inserts?
194. How do you configure priority and votes for replica set members?
195. How do you implement rolling maintenance without impacting availability?
196. How do you detect and resolve replica set split-brain scenarios?
197. How do you optimize oplog size for write-heavy clusters?
198. How do you monitor heartbeat timeouts in replica sets?
199. How do you automate failover testing in replica sets?
200. How do you integrate monitoring tools for HA metrics?

🔴 Advanced Level (7+ years) – 201–500

Sharding & Cluster Management (201–240)

201. How do you select an optimal shard key for large collections?
202. How do you detect shard key skew and rebalance data?
203. How do you add new shards without downtime?
204. How do you remove a shard safely from a cluster?
205. How do you monitor chunk migrations across shards?
206. How do you prevent hot shards during bulk writes?
207. How do you configure tag-aware sharding for data locality?
208. How do you detect unbalanced shard utilization?
209. How do you optimize queries that span multiple shards?
210. How do you design indexes for sharded collections?
211. How do you rebalance shards manually if auto-balance fails?
212. How do you implement shard-aware aggregation pipelines?
213. How do you monitor shard-level performance metrics?
214. How do you perform backups across sharded clusters?
215. How do you ensure data consistency across shards?
216. How do you design multi-region sharded clusters?
217. How do you monitor network latency between shards?
218. How do you handle cross-shard transactions efficiently?
219. How do you detect and prevent chunk migration storms?
220. How do you design sharding strategy for IoT time-series data?
221. How do you automate sharding for new collections?
222. How do you detect queries not using shard keys?
223. How do you optimize queries using $in across shards?

224. How do you handle shard key updates safely?
225. How do you design indexes for sharded time-series collections?
226. How do you troubleshoot mongos routing performance issues?
227. How do you detect and resolve stale mongos metadata caches?
228. How do you monitor chunk balancing frequency and impact?
229. How do you configure read/write distribution across shards?
230. How do you optimize aggregation pipelines on sharded clusters?
231. How do you handle resharding in production clusters?
232. How do you plan resharding with minimal downtime?
233. How do you track shard migrations for compliance auditing?
234. How do you implement shard-aware caching layers?
235. How do you detect shard fragmentation impacting performance?
236. How do you perform consistent backups on resharded collections?
237. How do you optimize mongos routing table updates?
238. How do you monitor shard-level replication lag?
239. How do you scale shards vertically vs horizontally?
240. How do you design monitoring dashboards for sharded clusters?

Performance Tuning & Query Optimization (241–300)

241. How do you detect slow queries in production without profiler overhead?
242. How do you optimize $lookup operations for large collections?
243. How do you rewrite aggregation pipelines to reduce RAM usage?
244. How do you detect queries spilling to disk during aggregation?
245. How do you optimize $unwind for arrays with thousands of elements?
246. How do you design indexes to support aggregation performance?
247. How do you analyze explain plans for sharded queries?
248. How do you rewrite $match stages for early filtering?
249. How do you detect queries causing blocking locks?
250. How do you optimize $group stages on large datasets?
251. How do you reduce network overhead for aggregation queries?
252. How do you implement query-level caching for heavy reports?
253. How do you optimize $sort and $limit for memory efficiency?
254. How do you analyze $graphLookup performance?
255. How do you optimize $facet pipelines in parallel processing?
256. How do you detect and fix index scan regressions?
257. How do you tune write operations for heavy insert workloads?
258. How do you monitor batch inserts to prevent replication lag?
259. How do you handle large $in queries efficiently?
260. How do you optimize queries using array indexes?
261. How do you tune query planner parameters for complex joins?
262. How do you detect collection scans in production workloads?
263. How do you optimize queries for capped collections?
264. How do you analyze and reduce lock contention in high-write workloads?

265. How do you rewrite $project stages to reduce memory footprint?
266. How do you optimize $regex queries with indexes?
267. How do you tune $text search queries for high throughput?
268. How do you optimize $merge operations in aggregation pipelines?
269. How do you detect inefficient $bucket usage?
270. How do you design indexes to cover frequent aggregations?
271. How do you monitor query execution time and memory consumption?
272. How do you tune bulk updates for minimal impact on reads?
273. How do you optimize $cond and $switch operations in aggregation?
274. How do you rewrite pipelines to take advantage of covered queries?
275. How do you tune read/write concerns for query performance?
276. How do you analyze cache hits for frequently accessed queries?
277. How do you optimize $out operations to prevent blocking?
278. How do you tune cursor batch size for large queries?
279. How do you analyze query performance on secondary replicas?
280. How do you optimize $sample aggregation stages for randomness vs performance?
281. How do you detect and prevent disk I/O bottlenecks from queries?
282. How do you optimize $addFields and $set operations in pipelines?
283. How do you use aggregation hints to improve performance?
284. How do you detect $lookup pipeline stages causing network overhead?
285. How do you tune $sortArray operations for large documents?
286. How do you monitor memory usage in aggregation-heavy workloads?
287. How do you optimize $expr queries for better index utilization?
288. How do you analyze query plans for sharded collections?
289. How do you prevent $merge write conflicts in sharded clusters?
290. How do you tune $facet pipelines for parallel execution?
291. How do you rewrite pipelines to minimize $group memory usage?
292. How do you detect queries causing high page fault rates?
293. How do you monitor aggregation disk spills in real-time?
294. How do you optimize $replaceRoot and $replaceWith operations?
295. How do you detect and remove unnecessary $lookup stages?
296. How do you optimize queries with frequent $exists filters?
297. How do you rewrite pipelines to leverage pre-aggregated collections?
298. How do you tune $map and $reduce operations in aggregation?
299. How do you monitor $sort stages for RAM usage?
300. How do you optimize queries with $arrayElemAt and $slice operators?

🔴 Advanced Level – 301–500

Replication, High Availability & Disaster Recovery (301–340)

301. How do you configure delayed members for point-in-time recovery?
302. How do you monitor oplog window size for disaster recovery planning?
303. How do you prevent replication lag during heavy writes?

304. How do you handle rollback scenarios in replica sets?
305. How do you promote a hidden secondary to primary safely?
306. How do you configure majority write concern for durability?
307. How do you detect elections happening too frequently?
308. How do you troubleshoot heartbeat failures between members?
309. How do you optimize network bandwidth for replication traffic?
310. How do you monitor replication lag per database and collection?
311. How do you configure replica sets across multiple data centers?
312. How do you handle failover testing in production clusters?
313. How do you prevent split-brain scenarios in multi-datacenter setups?
314. How do you integrate HA monitoring with Prometheus/Grafana?
315. How do you automate alerts for replication failures?
316. How do you configure voting and priority in replica set members?
317. How do you resync a secondary without full initial sync?
318. How do you detect oplog overflow in high-write environments?
319. How do you configure write concern and journaling for latency-sensitive apps?
320. How do you test disaster recovery drills without impacting live traffic?
321. How do you optimize delayed members for reporting queries?
322. How do you monitor secondary read performance?
323. How do you handle read/write split in replica sets for analytics?
324. How do you design backup strategies compatible with replica sets?
325. How do you detect replication conflicts in distributed writes?
326. How do you plan replica set topology for geographic redundancy?
327. How do you monitor replication lag caused by heavy aggregation queries?
328. How do you prevent disk I/O bottlenecks in secondaries?
329. How do you ensure backup consistency during failover?
330. How do you handle rolling upgrades of replica set members?
331. How do you monitor election outcome metrics for reliability?
332. How do you manage hidden nodes for operational reporting?
333. How do you detect network partition issues affecting elections?
334. How do you tune heartbeatIntervalMillis for WAN deployments?
335. How do you monitor write concern acknowledgment delays?
336. How do you optimize secondary reads without impacting replication lag?
337. How do you automate failover for minimal downtime?
338. How do you handle split-brain recovery after network partition?
339. How do you monitor replication performance with multiple primaries in test clusters?
340. How do you ensure failover procedures align with RPO/RTO requirements?

Sharding & Cluster Management Advanced (341–380)

341. How do you monitor sharded cluster chunk distribution in real-time?
342. How do you detect and resolve shard key hotspots?
343. How do you perform resharding on a live cluster?
344. How do you handle shard migrations safely?

345. How do you monitor network latency between mongos routers and shards?
346. How do you detect mongos routing cache inconsistencies?
347. How do you optimize queries for range-based shard keys?
348. How do you rebalance shards manually without impacting writes?
349. How do you monitor chunk migrations during heavy write loads?
350. How do you configure shard tags for geographic data distribution?
351. How do you scale shards vertically vs horizontally?
352. How do you detect and resolve orphaned documents after shard migrations?
353. How do you implement shard-aware aggregation pipelines?
354. How do you monitor sharded cluster metrics with minimal overhead?
355. How do you troubleshoot queries spanning multiple shards?
356. How do you ensure index consistency across shards?
357. How do you optimize $lookup queries in sharded collections?
358. How do you handle shard key updates safely?
359. How do you plan shard cluster upgrades with zero downtime?
360. How do you monitor write distribution across shards?
361. How do you detect heavy queries causing chunk migrations?
362. How do you optimize aggregation queries on a sharded cluster?
363. How do you prevent single shard overloads?
364. How do you monitor chunk balancing impact on system performance?
365. How do you handle cross-shard transactions efficiently?
366. How do you design indexes for optimal shard key performance?
367. How do you perform consistent backups across shards?
368. How do you monitor the balancer process performance?
369. How do you detect and resolve mongos bottlenecks?
370. How do you optimize resharding for minimal downtime?
371. How do you implement shard-aware caching strategies?
372. How do you monitor and tune mongos query routing?
373. How do you detect uneven shard utilization over time?
374. How do you monitor shard-level replication lag?
375. How do you optimize queries for hashed shard keys?
376. How do you implement sharding for time-series collections?
377. How do you monitor shard-level storage usage?
378. How do you handle shard removal and data migration?
379. How do you design sharding strategies for multi-tenant applications?
380. How do you detect and prevent hot shard conditions?

Indexing & Query Optimization Advanced (381–420)

381. How do you analyze queries using explain("executionStats")?
382. How do you detect index scans not being used properly?
383. How do you optimize queries for compound index utilization?
384. How do you balance index creation overhead vs query performance?
385. How do you implement partial indexes for selective workloads?

386. How do you detect and remove duplicate indexes?
387. How do you optimize text search with text indexes?
388. How do you monitor index usage over time?
389. How do you optimize queries using wildcard indexes?
390. How do you rebuild indexes with minimal downtime?
391. How do you optimize $regex queries with indexes?
392. How do you detect index bloat in large collections?
393. How do you tune indexes for heavy write workloads?
394. How do you analyze and optimize aggregation pipeline indexes?
395. How do you implement TTL indexes for auto-expiring data?
396. How do you monitor covered queries to reduce disk I/O?
397. How do you optimize $in queries with indexes?
398. How do you design indexes for geospatial queries?
399. How do you balance index usage between primary and secondary nodes?
400. How do you detect and optimize range queries for large datasets?

Memory, Storage & Performance Tuning (421–460)

401. How do you monitor WiredTiger cache usage in production?
402. How do you tune wiredTigerCacheSizeGB for heavy writes?
403. How do you detect memory pressure in high-concurrency workloads?
404. How do you optimize journal commit intervals for latency-sensitive apps?
405. How do you detect and handle storage fragmentation?
406. How do you compact collections without affecting live traffic?
407. How do you monitor disk space usage per database and collection?
408. How do you tune storage engine parameters for optimal I/O?
409. How do you optimize read/write throughput on NVMe vs HDD storage?
410. How do you monitor page fault rates for performance tuning?
411. How do you optimize queries to reduce memory consumption?
412. How do you detect disk I/O bottlenecks in production clusters?
413. How do you tune memory allocation for aggregation pipelines?
414. How do you monitor storage engine statistics for hotspot detection?
415. How do you detect excessive temporary file usage?
416. How do you optimize bulk writes for minimal impact on secondary nodes?
417. How do you monitor checkpoint frequency and impact on latency?
418. How do you tune WiredTiger compression settings for performance vs storage savings?
419. How do you optimize page eviction strategy for large collections?
420. How do you detect queries causing high disk utilization?
421. How do you configure storage for multi-database clusters?
422. How do you monitor cache hit/miss ratios?
423. How do you optimize collection scans for large datasets?
424. How do you monitor server resource usage for proactive tuning?
425. How do you detect and prevent slow query build-up?
426. How do you tune aggregation pipelines for memory efficiency?

427. How do you monitor journal write performance?
428. How do you detect storage engine stalls affecting queries?
429. How do you configure multiple storage paths for high throughput?
430. How do you optimize indexes to reduce memory footprint?
431. How do you detect and optimize large array queries?
432. How do you tune system parameters for heavy insert workloads?
433. How do you monitor live compactions for performance impact?
434. How do you detect write lock contention in heavy write environments?
435. How do you balance RAM allocation between queries and WiredTiger cache?
436. How do you monitor performance impact of background index builds?
437. How do you detect and mitigate hotspot keys?
438. How do you optimize updates for large document collections?
439. How do you detect and fix collection fragmentation?
440. How do you monitor and tune disk flush performance?
441. How do you optimize capped collections for high-throughput writes?
442. How do you detect large document reads causing performance bottlenecks?
443. How do you monitor page eviction rates for performance tuning?
444. How do you detect high-latency queries using explain stats?
445. How do you tune write concern and journaling for latency vs durability?
446. How do you monitor heavy aggregation queries for memory spikes?
447. How do you detect index contention in write-heavy environments?
448. How do you tune batch inserts for optimal performance?
449. How do you monitor and mitigate disk I/O saturation?
450. How do you optimize query performance using $hint?
451. How do you monitor cache eviction events?
452. How do you detect and fix inefficient $group usage?
453. How do you optimize $lookup in aggregation for large collections?
454. How do you detect memory spills to disk?
455. How do you monitor and tune concurrency for high-throughput queries?
456. How do you optimize shard key choice for query performance?
457. How do you detect performance regressions after MongoDB upgrades?
458. How do you monitor replica set members for memory utilization?
459. How do you tune background index builds in production?
460. How do you monitor WiredTiger statistics for proactive optimization?

Security, Monitoring & Automation (461–500)

461. How do you enforce role-based access control (RBAC) across clusters?
462. How do you monitor failed login attempts for security breaches?
463. How do you integrate LDAP or Kerberos authentication?
464. How do you implement encryption at rest using storage-level encryption?
465. How do you enable TLS/SSL for client-server and inter-node connections?
466. How do you monitor audit logs for suspicious activity?
467. How do you automate alerts for slow queries and replication lag?

468. How do you configure log rotation and retention policies?
469. How do you monitor and tune connection pool usage?
470. How do you automate backups and restore verification?
471. How do you enforce field-level encryption in collections?
472. How do you monitor cluster health in real-time using Prometheus/Grafana?
473. How do you implement alerting for shard rebalancing events?
474. How do you automate index monitoring and rebuild scheduling?
475. How do you integrate MongoDB monitoring with enterprise dashboards?
476. How do you enforce secure network configurations for production clusters?
477. How do you monitor slow operations on mongos routers?
478. How do you automate failover drills in sharded clusters?
479. How do you monitor replication oplog size and growth for performance tuning?
480. How do you detect abnormal query patterns indicative of security breaches?
481. How do you automate alerting for disk space thresholds?
482. How do you monitor and alert for primary election events in replica sets?
483. How do you enforce password rotation policies for MongoDB users?
484. How do you monitor and detect blocked or long-running transactions?
485. How do you implement centralized logging for multiple MongoDB clusters?
486. How do you automate resource usage reporting per database/collection?
487. How do you integrate MongoDB with configuration management tools like Ansible or Chef?
488. How do you automate patching and minor upgrades across multiple MongoDB nodes?
489. How do you monitor network latency between shards and mongos routers?
490. How do you automate testing of backup and restore procedures?
491. How do you enforce consistent naming conventions for collections and indexes?
492. How do you monitor authentication and authorization events for audit compliance?
493. How do you detect potential denial-of-service attacks from query patterns?
494. How do you automate the detection and cleanup of orphaned documents after migrations?
495. How do you integrate MongoDB metrics with enterprise monitoring platforms like Datadog?
496. How do you monitor and optimize aggregation pipelines dynamically?
497. How do you implement automated testing for query performance regressions?
498. How do you configure alerts for memory and CPU usage anomalies?
499. How do you ensure secure and automated handling of MongoDB credentials in CI/CD pipelines?
500. How do you plan and implement a MongoDB environment to scale for 10x growth while maintaining HA, performance, and security?