

■ DAYS 1–30: AWS Database Fundamentals

1. What is Database as a Service (DBaaS) in AWS?
2. Shared Responsibility Model for AWS Databases
3. AWS Global Infrastructure for Databases
4. Difference between AZ-level and Region-level DB services
5. AWS Database Service Categories Explained
6. Choosing the Right AWS Database for Your Workload
7. CAP Theorem in AWS Databases
8. OLTP vs OLAP in AWS
9. Managed vs Self-Managed Databases on AWS
10. AWS Free Tier Database Options
11. RDS vs EC2-hosted Databases
12. What is High Availability in AWS Databases?
13. Understanding Durability in AWS Storage
14. AWS Database Pricing Models Explained
15. Storage Types used by AWS Databases
16. Multi-AZ Architecture Basics
17. Read vs Write Workloads in AWS Databases
18. AWS Database Networking Basics
19. IAM Basics for Database Access
20. Encryption at Rest vs In Transit
21. AWS KMS for Database Encryption
22. Database Backups in AWS – Overview
23. Snapshots vs Automated Backups
24. AWS Monitoring Basics for Databases
25. AWS CloudWatch for DBAs
26. AWS CloudTrail for Database Auditing
27. AWS Well-Architected Framework – Databases
28. Scalability Patterns in AWS Databases
29. AWS Limits & Quotas for Databases
30. Cost Optimization Basics for AWS Databases

■ DAYS 31–90: Amazon RDS Deep Dive

31. What is Amazon RDS?
32. Supported Engines in Amazon RDS
33. RDS Instance Classes Explained
34. RDS Storage Options (gp2, gp3, io1, io2)
35. RDS Multi-AZ Architecture
36. RDS Read Replicas – How They Work
37. Difference between Multi-AZ and Read Replicas
38. Automated Backups in RDS
39. Manual Snapshots in RDS
40. Point-in-Time Recovery in RDS
41. RDS Maintenance Window Explained
42. Minor vs Major Version Upgrades
43. RDS Parameter Groups
44. Option Groups in RDS
45. RDS Performance Insights

- 46. Enhanced Monitoring in RDS
- 47. RDS Event Subscriptions
- 48. RDS Security Groups vs NACLs
- 49. IAM Authentication for RDS
- 50. SSL/TLS Connectivity in RDS
- 51. RDS Encryption Internals
- 52. RDS Storage Auto Scaling
- 53. RDS Failover Process Explained
- 54. RDS Blue/Green Deployments
- 55. RDS Proxy – Use Cases
- 56. RDS Proxy vs Connection Pooling
- 57. RDS Snapshot Copy Across Regions
- 58. RDS Snapshot Sharing
- 59. RDS Cross-Region Replication
- 60. RDS Disaster Recovery Strategies
- 61. RDS Monitoring Metrics Every DBA Must Track
- 62. RDS CPU Credit Model (Burstable Instances)
- 63. RDS Scaling Limitations
- 64. RDS Cost Optimization Tips
- 65. Common RDS Performance Issues
- 66. RDS Troubleshooting Checklist
- 67. RDS vs Aurora – Key Differences
- 68. Migrating On-Prem DB to RDS
- 69. RDS Downtime Scenarios Explained
- 70. RDS Best Practices Summary

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DAYS 91–150: Amazon Aurora (MySQL & PostgreSQL)

- 71. What Makes Amazon Aurora Different?
- 72. Aurora Architecture Deep Dive
- 73. Aurora Storage Layer Explained
- 74. Aurora Replicas vs RDS Read Replicas
- 75. Aurora Writer vs Reader Endpoints
- 76. Aurora Cluster Endpoints
- 77. Aurora Auto Scaling Read Replicas
- 78. Aurora Serverless v1 vs v2
- 79. Aurora Global Database Architecture
- 80. Aurora Failover Process
- 81. Aurora Backup & Recovery
- 82. Aurora PITR Explained
- 83. Aurora Parameter Groups
- 84. Aurora Performance Insights
- 85. Aurora vs RDS Cost Comparison
- 86. Aurora Monitoring Metrics
- 87. Aurora Connection Handling
- 88. Aurora Replica Lag Monitoring
- 89. Aurora Storage Autoscaling
- 90. Aurora Security Best Practices
- 91. IAM Authentication with Aurora

- 92. Aurora Encryption Internals
- 93. Aurora Maintenance Strategies
- 94. Aurora Version Upgrade Challenges
- 95. Aurora Clone Feature
- 96. Aurora Backtrack Feature
- 97. Aurora Blue/Green Deployments
- 98. Aurora Query Cache Behavior
- 99. Aurora Limits & Quotas
- 100. Aurora Troubleshooting Guide
- 101. Aurora for Microservices
- 102. Aurora for SaaS Applications
- 103. Aurora for High-Throughput Apps
- 104. Aurora DR Design Patterns
- 105. Aurora Cost Optimization Tips
- 106. Aurora Global Writes Explained
- 107. Aurora Cross-Region Read Latency
- 108. Aurora Monitoring with CloudWatch
- 109. Aurora Best Practices Summary
- 110. When NOT to use Aurora

■ DAYS 151–210: NoSQL Databases (DynamoDB, Keyspaces)

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- 112. DynamoDB Core Concepts
- 113. DynamoDB Tables, Items & Attributes
- 114. Partition Keys vs Sort Keys
- 115. DynamoDB Index Types
- 116. GSI vs LSI Explained
- 117. DynamoDB Capacity Modes
- 118. Read & Write Capacity Units
- 119. DynamoDB Auto Scaling
- 120. DynamoDB On-Demand Mode
- 121. DynamoDB Hot Partition Problem
- 122. DynamoDB Data Modeling Basics
- 123. Single-Table Design Explained
- 124. DynamoDB TTL Use Cases
- 125. DynamoDB Streams Explained
- 126. DynamoDB Global Tables
- 127. DynamoDB Backup & Restore
- 128. DynamoDB PITR
- 129. DynamoDB Encryption & Security
- 130. IAM Policies for DynamoDB
- 131. DynamoDB Conditional Writes
- 132. DynamoDB Transactions
- 133. DynamoDB DAX Explained
- 134. DynamoDB Performance Tuning
- 135. DynamoDB Monitoring Metrics
- 136. DynamoDB Cost Optimization
- 137. DynamoDB Throttling Explained

- 138. DynamoDB Error Handling
 - 139. DynamoDB Use Cases
 - 140. When NOT to use DynamoDB
 - 141. Amazon Keyspaces (Cassandra)
 - 142. Keyspaces Architecture Overview
 - 143. Keyspaces Data Modeling
 - 144. Keyspaces vs Self-Managed Cassandra
 - 145. Keyspaces Backup Strategy
 - 146. Keyspaces Performance Tuning
 - 147. Keyspaces Security Model
 - 148. Keyspaces Pricing Model
 - 149. DynamoDB vs Aurora – Use Cases
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DAYS 211–260: Data Warehousing & Analytics

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 - 153. Redshift Cluster Types
 - 154. Redshift Node Types
 - 155. Redshift Distribution Styles
 - 156. Redshift Sort Keys Explained
 - 157. Redshift Vacuum & Analyze
 - 158. Redshift Backup & Snapshots
 - 159. Redshift Spectrum Explained
 - 160. Redshift Concurrency Scaling
 - 161. Redshift Workload Management (WLM)
 - 162. Redshift Monitoring Metrics
 - 163. Redshift Security Best Practices
 - 164. Redshift Data Loading Strategies
 - 165. Redshift Performance Tuning Tips
 - 166. Redshift Cost Optimization
 - 167. Redshift RA3 Nodes
 - 168. Redshift Serverless Explained
 - 169. Redshift Maintenance Tasks
 - 170. Redshift vs Snowflake
 - 171. Athena vs Redshift
 - 172. AWS Glue for DBAs
 - 173. Glue Data Catalog Explained
 - 174. Glue Crawlers Best Practices
 - 175. Glue Jobs Monitoring
 - 176. Lakehouse Architecture in AWS
 - 177. S3 as a Data Lake
 - 178. Querying S3 with Athena
 - 179. Database Admin Role in Analytics
 - 180. Data Governance in AWS
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DAYS 261–310: Migration, DR & Automation

- 181. AWS DMS Overview

- 182. Homogeneous vs Heterogeneous Migration
- 183. DMS Full Load vs CDC
- 184. DMS Task Monitoring
- 185. DMS Common Failures
- 186. AWS SCT Explained
- 187. Schema Conversion Challenges
- 188. Database Migration Strategies (6Rs)
- 189. Cutover Planning for DB Migration
- 190. Zero Downtime Migration Patterns
- 191. Cross-Region DR Strategies
- 192. Backup Automation Using Lambda
- 193. Snapshot Lifecycle Automation
- 194. Event-Driven DB Automation
- 195. Infrastructure as Code for Databases
- 196. CloudFormation for RDS
- 197. Terraform for AWS Databases
- 198. Blue/Green Deployment Patterns
- 199. Canary Releases for Databases
- 200. Database Version Upgrade Automation
- 201. Multi-Account DB Strategy
- 202. Centralized Monitoring for DBs
- 203. Cross-Account Snapshot Sharing
- 204. DR Testing Best Practices
- 205. Chaos Engineering for Databases
- 206. Automating Failover Testing
- 207. RTO vs RPO Explained
- 208. Cost-Aware DR Design
- 209. Backup Compliance Auditing
- 210. Migration Lessons Learned

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DAYS 311–365: Security, Cost & DBA Career Growth

- 211. IAM Best Practices for DBAs
- 212. Secrets Manager for Database Credentials
- 213. Rotation of DB Passwords
- 214. Audit Logging in AWS Databases
- 215. Database Compliance (SOC, ISO, HIPAA)
- 216. Data Masking Strategies
- 217. Encryption Key Rotation
- 218. VPC Design for Databases
- 219. PrivateLink for Database Access
- 220. Zero Trust for Databases
- 221. Cost Explorer for DB Cost Analysis
- 222. Rightsizing Database Instances
- 223. Reserved Instances for RDS
- 224. Savings Plans Impact on Databases
- 225. Storage Cost Optimization
- 226. Monitoring Cost Anomalies
- 227. FinOps for Database Teams

- 228. Database SLA Design
- 229. Handling Database Incidents
- 230. Postmortem for DB Failures
- 231. DBA Role in Cloud vs On-Prem
- 232. Skills Required for AWS DBA
- 233. AWS DBA Career Path
- 234. AWS DBA Interview Questions
- 235. Common AWS DBA Mistakes
- 236. Real-World DBA War Stories
- 237. Building a DBA Portfolio
- 238. Blogging vs LinkedIn for DBAs
- 239. GitHub for Database Scripts
- 240. Personal Branding for DBAs
- 241. Teaching Databases Online
- 242. Building a DBA Bootcamp
- 243. Creating Database Courses
- 244. Certification Path for AWS DBAs
- 245. AWS Specialty Database Certification
- 246. Hands-on Labs for AWS Databases
- 247. Open-Source Tools for DBAs
- 248. AI & Databases in AWS
- 249. Serverless Databases Future
- 250. Cloud-Native Database Trends
- 251. Multi-Cloud Database Reality
- 252. Vendor Lock-In Myths
- 253. Database Observability
- 254. SRE + DBA Collaboration
- 255. Platform Engineering & Databases
- 256. Data Mesh & DBA Role
- 257. GenAI Impact on DB Administration
- 258. Future of SQL vs NoSQL
- 259. Building Authority on LinkedIn
- 260. 365-Day Content Consistency Tips
- 261. Recap: Year of AWS Database Learning 