Job description

SAP HANA Database Performance tuning Expert Job Summary: As a HANA Database Performance Tuning Expert, you will be responsible for optimizing the performance, scalability, and efficiency of HANA database systems. Your role will involve analyzing database performance, identifying bottlenecks, proposing, and implementing solutions, and ensuring that the HANA database delivers optimal performance to meet business requirements. This includes in-depth analysis of SQL queries, optimization techniques, and identifying relevant database hints to enhance query performance. Key Responsibilities: 1. Performance Analysis: Conduct comprehensive performance analysis of HANA database systems to identify performance bottlenecks, high resource consumption, and potential areas for improvement. 2. SQL Query Optimization: Analyze and optimize SQL queries used in HANA database to minimize response times and resource utilization. Utilize query execution plans and other performance indicators to identify areas for improvement. 3. Database Hints: Identify and implement relevant database hints to influence the query optimizer's execution plan and improve the performance of critical SQL queries. 4. Indexing and Partitioning: Optimize database indexing and data partitioning strategies to improve data retrieval and processing efficiency. 5. Memory Management: Configure and optimize memory settings in the HANA database to balance performance and resource consumption. 6. NUMA Analysis: Perform NUMA analysis to understand memory access patterns and optimize database operations accordingly for multi-socket systems. 7. Database Thread CPU and Memory: Monitor and analyze database thread CPU usage and memory consumption to identify performance bottlenecks and implement necessary optimizations. 8. Data Modeling: Collaborate with developers and data modelers to design efficient database models for optimal data processing and storage. 9. Compression and Archiving: Implement data compression and archiving strategies to reduce storage requirements and enhance database performance. 10. HANA Database Parameters: Fine-tune HANA database parameters and configurations to achieve optimal performance levels. 11. Query Performance Monitoring: Implement and maintain monitoring tools to track query performance metrics, proactively identify slow-running queries, and provide timely recommendations for optimization. 12. Performance Testing: Plan and execute performance testing scenarios to assess HANA database performance under different workloads and stress conditions. 13. Troubleshooting: Investigate and resolve database performance-related incidents and issues, providing expert-level technical support. 14. Patching and Upgrades: Collaborate with the technical team to plan and execute database patches, upgrades, and migrations while ensuring minimal impact on performance. 15. Documentation: Create and maintain detailed documentation of performance analysis, tuning techniques, best practices, and optimization strategies for future reference. 16. Collaboration: Work closely with cross-functional teams, including application developers and infrastructure teams, to implement performance-related changes and align with business requirements. 17. Continuous Improvement: Stay up-to-date with the latest HANA database advancements, performance optimization tools, and best practices to continuously improve database performance. Qualifications and Skills: • Bachelor's degree in Computer Science, Information Technology, or a related field. • Proven experience as a HANA Database Performance Tuning Expert with a focus on optimizing SAP HANA databases. • In-depth knowledge of SAP HANA database architecture, in-memory computing, and performance tuning techniques. • Strong expertise in SQL optimization and query performance monitoring. • Familiarity with HANA data modeling, indexing, and partitioning strategies. • Proficiency in HANA database performance monitoring and analysis tools. • Experience with NUMA analysis and optimization for multi-socket systems. • Strong understanding of database thread CPU and memory utilization. • Knowledge of relevant database hints to optimize query execution plans. • Excellent problem-solving skills and the ability to work in a collaborative team environment. • Effective communication skills to articulate complex technical concepts to both technical and non-technical stakeholders. Preferred Additional Skills: • SAP HANA certifications or relevant SAP certifications. • Experience with SAP Solution Manager for database performance monitoring and diagnostics. • Knowledge of SAP data lifecycle management, data aging, and data tiering. • Familiarity with SAP HANA backup and recovery strategies. • Experience with cloud-based HANA database implementations. • Knowledge of SAP HANA XS (Extended Application Services) for advanced database application development.

Skills

Sap Native Hana Core