Yesho Krishna Arisa Database Administrator IBM Certified Advanced DB2UDB DBA V11.5

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# **PROFESSIONAL SUMMARY**

**DB2 LUW (Linux, Unix, and Windows)Experience**: Over **15+** years of expertise in database administration, development, migration, and performance tuning for DB2 UDB EE and EEE (DPF) in high-volume OLTP and data warehouse environments.

- Installed and configured DB2 LUW in non-partitioned and partitioned (DPF) environments across development, testing, and production systems.
- Automated installation processes using shell scripts and Ansible to ensure consistency.
- Configured storage groups, buffer pools, and instance parameters for optimal performance.
- Deployed high-availability solutions such as HADR and TSA during installations.
- Integrated IBM tools like Data Studio and Optim Performance Manager for database management.
- Installed encryption modules and SSL/TLS for secure database transactions.
- Upgraded hundreds of databases from versions 9.7, 10.5, and 11.x to 11.5, minimizing downtime.
- Conducted pre-upgrade assessments and ensured compatibility across platforms.
- Migrated PowerHA clusters to HADR and TSA setups, reducing operational costs and enhancing availability.
- Automated upgrade tasks to streamline workflows and improve efficiency.
- Applied cumulative fix packs and documented upgrade processes, including failover/failback scenarios.
- Transitioned environments from AIX to RHEL for scalability and cost savings.
- Designed database architectures for high-transaction OLTP and large-scale data warehouses.
- Configured partitioning strategies in DPF environments to optimize workload distribution.
- Developed indexing and schema strategies to enhance query performance and storage efficiency.
- Designed HADR and TSA clusters for disaster recovery and high availability.
- Converted LOBs to inline structures, improving storage usage and performance.
- Designed CDC replication configurations for seamless real-time data synchronization.
- Applied security patches and updates to address vulnerabilities and ensure compliance.
- Coordinated with storage administrators to optimize database performance and storage usage.
- Analyzed performance metrics using db2pd, and db2exfmt for optimization.
- Configured buffer pools and balanced workloads in DPF environments for better throughput.
- Resolved performance issues in LOB-heavy tables by optimizing storage configurations.
- Conducted performance benchmarking and applied tuning recommendations before major rollouts.
- Developed custom scripts to monitor workload trends and proactively address performance issues.
- Automated daily maintenance tasks such as backups, reorganization, and database monitoring. Scheduled backups and recovery processes using Cron and Control-M, ensuring data integrity.

 Regularly performed RUNSTATS and REORG operations to maintain database health. Monitored performance using db2top, OPM, and custom scripts, resolving bottlenecks proactively.

**DB2 z/OSExperience**: 3 years of administering, designing, installations and upgrading DB2 databases in Sysplex mainframe environments.

- Installed, configured, and upgraded **DB2 z/OS v12** subsystems, associated tools, and software components, ensuring compatibility across system environments.
- Configured storage groups and buffer pools, fine-tuning **EDM pools**, **z/OS parameters**, and coupling facility structures for enhanced performance.
- Implemented workload prioritization using **DB2 Workload Manager (WLM)** and conducted performance analysis via tools like **IBM OMEGAMON and Db2 Performance Expert**.
- Developed and implemented backup and recovery strategies using Image Copy,
   Incremental Backup, FlashCopy, and DB2 Recovery Log Analysis, ensuring data consistency and rapid disaster recovery.
- Enforced encryption for data at rest and in transit, adhering to security standards such as **GDPR** and **SOX**, while managing users, roles, and permissions through **RACF**.
- Configured and maintained GDPS and Db2 Data Sharing groups to ensure high availability and scalability in Sysplex environments, validating disaster recovery procedures through DR drills.
- Automated routine tasks using **REXX scripts, JCL**, and scheduling tools, ensuring efficient execution of backups, reorganization, and monitoring activities.
- Monitored database health and performance using tools like **Db2 Query Monitor**, **Db2** Analytics Accelerator, and in-memory metrics to proactively identify and resolve bottlenecks.
- Resolved critical incidents using utilities such as DSN1COPY, DSN1PRNT, and DB2 Diagnostics, performing detailed root-cause analyses.
- Leveraged advanced features of Db2 z/OS v12, including PBR (Partition-By-Range) Relative Page Numbering, RESTful API support, and SQL enhancements to modernize database environments.
- Maintained expertise in emerging technologies by staying updated on fix packs, IBM recommendations, and new Db2 features to continuously enhance system capabilities.
- Expertise in Job Control Language (JCL) and integrating mainframe data sources with modern platforms.
- Implementation of replication techniques using Q Replication, CDC, and InfoSphere Data Replication.
- Performance tuning and maintenance in mission-critical mainframe systems.

**PostgreSQLExperience**: 5 years as an EnterpriseDB/PostgreSQL DBA managing highly transactional workloads.

- Setting up and managing high availability using EFM and Streaming Replication.
- In-depth understanding of PostgreSQL internals and tuning parameters for optimal performance.
- Performance analysis and query optimization using tools like Explain Analyze and pg\_advise\_index.
- Set up asynchronous and synchronous replication for data backups and quick failover during outages.
- Created disaster recovery plans using Point-in-Time Recovery (PITR), WAL archiving, and regular backups to restore data during emergencies.

- Optimized slow queries using EXPLAIN/ANALYZE, improved indexing, and data partitioning for faster performance.
- Enhanced database efficiency by tuning memory usage, automating cleanup tasks (autovacuum), and managing connection pools.
- Troubleshot and fixed issues like deadlocks, slow queries, and system bottlenecks to maintain smooth operations.

## **TECHNICAL SKILLS:**

**RDBMS & NoSQL:** IBM DB2 UDB (7.x–11.5), Db2 z/OS v(9.x-12), VSAM, IMS-DB, MS SQL

Server (2008–2022), PostgreSQL12-15, Cassandra, Couchbase, MySQL

Cloud Platforms: Microsoft Azure, AWS, Nutanix

Database Tools: IBM Optim, Foglight, CDC, ERWin, DB2 Performance Expert, IBM

Guardium, Protegrity

Scripting & Programming: Shell Scripting, Ansible, Perl, SQL, PL/SQL, Java, C++,COBOL, JCL.

**Operating Systems:** AIX, Linux, Windows Server, MVS, z/OS 2.4 **Application Servers:** WebSphere, PEGA, IBM BPM, Cognos

Key Technologies: HADR, TSA, Pacemaker, Q Replication, Data Replication, Encryption, and

**Security Audits** 

## **CERTIFICATIONS**

Microsoft Certified Azure Solution Architect Expert

- Microsoft Azure Fundamentals (AZ-300)
- IBM Certified DB2 Advanced Database Administration
- IBM Certified DB2 Warehouse v11.x
- MS SQL 2016 MSCA 70-764 (Administering SQL Database Infrastructure)
- Sun Certified Java Programmer
- IBM Certified in Test Process Model.

### **Education:**

Bachelors of Technology in Electrical & Electronics Engineering during 1994-1998 from Sri Venkateshwara University, India.

#### PROFESSIONAL EXPERIENCE

Sep 2023 – Till Date Database Administrator

Client: USAA Location: Remote Responsibilities:

- Designed, documented, and implemented the migration of DB2 to PostgreSQL on Linux, setting up High Availability using Streaming Replication and Enterprise Failover Manager (EFM 2.1).
- Designed, implemented, and managed HADR (High Availability Disaster Recovery) solutions across Linux and Unix platforms to ensure high availability and minimal downtime.
- Configured DB2 HADR with TSA (Tivoli System Automation) for automated failover and disaster recovery, optimizing system uptime and reducing manual intervention.

- Migrated traditional PowerHA clusters to HADR setups with TSA, documenting strategies and failover scenarios for Linux & Unix.
- Proactively monitored HADR status using commands like db2pd -hadr and automated alerting for synchronization issues.
- Managed and optimized DB2 z/OS databases on mainframe systems, ensuring high availability, scalability, and performance.
- Designed and maintained Job Control Language (JCL) scripts for efficient automation of database tasks, backups, and batch processing.
- Integrated mainframe DB2 data sources into modern platforms by utilizing replication tools like IBM InfoSphere or Q Replication.
- Performed database tuning, indexing, and query optimization on DB2 z/OS to improve processing efficiency and reduce resource utilization.
- Implemented data migration and synchronization processes to enable seamless interoperability between legacy mainframe systems and modern application
- Conducted failover and failback testing to validate disaster recovery procedures and ensure application continuity.
- Collaborated with cross-functional teams to plan database migrations from DB2 to PostgreSQL and Couchbase, ensuring compatibility and high performance across platforms.
- Installed and maintained database servers and tools like Optim Performance Manager on Linux, Unix, and Windows, providing continuous support for development and production environments.
- Configured Streaming Replication for PostgreSQL on Linux and Windows, ensuring zero data loss and minimal downtime during failovers.
- Monitored AWS RDS PostgreSQL and EC2-hosted DB2 LUW instances for performance bottlenecks, performing optimizations to meet SLA requirements.
- Tuned **HADR synchronization modes (SYNC, NEARSYNC, ASYNC)** to meet performance and recovery objectives.
- Automated backup strategies for HADR environments, integrating snapshots and log backups for compliance.
- Set up **Q Replication** between cDB2 Production and DR environments on Linux, ensuring data consistency and availability.
- Monitored and tuned application performance across Linux ensuring optimal resource utilization.
- Created and maintained DB2 objects (schemas, tablespaces, and indexes) on Linux, Unix, and Windows platforms.
- Migrated databases from RHEL7.x to RHEL9.x.
- Wrote advanced scripts on Linux, Unix, and Windows to automate database failover tasks, such as starting CDC services.
- Set up asynchronous and synchronous replication for data backups and quick failover during outages.
- Created disaster recovery plans using Point-in-Time Recovery (PITR), WAL archiving, and regular backups to restore data during emergencies.
- Optimized slow queries using EXPLAIN/ANALYZE, improved indexing, and data partitioning for faster performance.
- Built and set up PostgreSQL databases with replication (streaming, logical, physical), partitioning, and sharding to handle large-scale data efficiently.
- Configured high-availability tools like Patroni, PgBouncer, and Pgpool-II to minimize downtime and ensure continuous operation.

- Enhanced database efficiency by tuning memory usage, automating cleanup tasks (autovacuum), and managing connection pools.
- Troubleshot and fixed issues like deadlocks, slow queries, and system bottlenecks to maintain smooth operations.
- Performed regular maintenance tasks like vacuuming, reindexing, and managing table partitions
- Documented migration strategies, cluster conversions, and performance benchmarks for Linux, Unix, and Windows, enabling operational excellence.

**Environment:** DB2 v11.1/11.5 on LUW and DB2 v11/12 on z/OS 2.4, SQL Server 2019/2022, Couchbase 6.x, Cassandra, Azure, Control-M, Shell, Ansible.

# May 2022 – Sep 2023 Database Administrator

Client: TRUIST

**Location:** Atlanta US (Hybrid model)

Responsibilities:

- Set up **Q Replication** between cDB2 Production and DR environments on Linux, ensuring data consistency and availability.
- Monitored and tuned application performance across Linux ensuring optimal resource utilization.
- Created and maintained DB2 objects (schemas, tablespaces, and indexes) on Linux, Unix, and Windows platforms.
- Designed, implemented, and managed **HADR** (**High Availability Disaster Recovery**) solutions across Linux and Unix platforms to ensure high availability and minimal downtime.
- Configured DB2 HADR with TSA (Tivoli System Automation) for automated failover and disaster recovery, optimizing system uptime and reducing manual intervention.
- Proactively monitored HADR status using commands like db2pd -hadr and automated alerting for synchronization issues.
- Deployed and upgraded DB2 z/OS v12 databases along with associated tools, ensuring seamless integration with existing systems.
- Configured storage groups, optimized buffer pools, and adjusted z/OS parameters to enhance database performance.
- Leveraged DB2 Workload Manager (WLM) to optimize task prioritization and utilized tools like IBM OMEGAMON and Db2 Performance Expert for performance monitoring and analysis.
- Designed and executed robust backup and recovery strategies, including Image Copy, Incremental Backup, and FlashCopy, to maintain data integrity and support rapid disaster recovery.
- Built and set up PostgreSQL databases with replication (streaming, logical, physical), partitioning, and sharding to handle large-scale data efficiently.
- Configured high-availability tools like Patroni, PgBouncer, and Pgpool-II to minimize downtime and ensure continuous operation.
- Set up asynchronous and synchronous replication for data backups and quick failover during outages.
- Created disaster recovery plans using Point-in-Time Recovery (PITR), WAL archiving, and regular backups to restore data during emergencies.
- Optimized slow queries using EXPLAIN/ANALYZE, improved indexing, and data partitioning for faster performance.

- Enhanced database efficiency by tuning memory usage, automating cleanup tasks (autovacuum), and managing connection pools.
- Troubleshot and fixed issues like deadlocks, slow queries, and system bottlenecks to maintain smooth operations.
- Performed regular maintenance tasks like vacuuming, reindexing, and managing table partitions
- Implemented encryption for data in transit and at rest to comply with industry standards such as GDPR and SOX, and managed user permissions using RACF.
- Set up and managed GDPS and Db2 Data Sharing environments to ensure system scalability and continuous availability.
- Conducted failover and failback testing to validate disaster recovery procedures and ensure application continuity.
- Tuned HADR synchronization modes (SYNC, NEARSYNC, ASYNC) to meet performance and recovery objectives.
- Automated backup strategies for HADR environments, integrating snapshots and log backups for compliance.
- Managed and optimized DB2 z/OS databases on mainframe systems, ensuring high availability, scalability, and performance.
- Designed and maintained Job Control Language (JCL) scripts for efficient automation of database tasks, backups, and batch processing.
- Integrated mainframe DB2 data sources into modern platforms by utilizing replication tools like IBM InfoSphere or Q Replication.
- Performed database tuning, indexing, and query optimization on DB2 z/OS to improve processing efficiency and reduce resource utilization.
- Implemented data migration and synchronization processes to enable seamless interoperability between legacy mainframe systems and modern application
- Upgraded databases from Db2v10.5 to Db2v11.5 in Linux, Unix and Windows.
- Wrote advanced scripts on Linux, Unix, and Windows to automate database failover tasks, such as starting CDC services.
- Improved LOB object performance through efficient global mirroring configuration on Linux,
   Unix, and Windows.
- Converted LOBs to inline storage to enhance performance and achieve compression benefits across environments.
- Used db2top and OPM tools to monitor performance metrics and provided optimization recommendations for Linux & Unix.
- Migrated data across data centers using HPU and db\_migration tools, ensuring seamless transfer of large datasets on Linux & Unix.
- Implemented **Protegrity-based tokenization** to secure sensitive data and optimize performance for large-scale datasets in Linux, Unix & Windows.
- Deployed and configured IBM InfoSphere DataStage (11.7.1) on Linux, Unix, and Windows, integrating Flow Designer and real-time dashboards.
- Automated data refresh scripts to securely migrate PII columns using IBM Optim and Delphix on Linux, Unix, and Windows.
- Utilized IBM Guardium for compliance auditing and security monitoring on Linux, Unix, and Windows.
- Documented migration strategies, cluster conversions, and performance benchmarks for Linux, Unix, and Windows, enabling operational excellence.

**Environment:** DB2v10.5/11.5 on LUW, DB2 z/OS v11,HADR, TSM, Docker, DataStage, IBM CDC, IIDR 10.2.1, Shell, Q Replication, High Performance Unload (HPU) tool.

## Mar 2016 – Dec 2021 Database Administrator

Client: National Accounts Service Company (NASCO)

**Location:** Atlanta US **Responsibilities:** 

- Created and maintained instances, databases, tablespaces, and database objects across development, model, regression, and production environments on Linux, Unix (AIX), and Windows platforms.
- Responsible for all aspects of database administration, including development, application support, production support, and system DBA tasks for non-partitioned and partitioned (DPF) environments across Linux, Unix, and Windows.
- Tuned database systems on Linux to optimize ETL (Informatica) and reporting (Cognos) performance for multi-terabyte databases under SLA.
- Designed, developed, and maintained NASCO's Ncompass and Navigator DB2 databases for various BCBS plans across the U.S.
- Installed and configured IBM InfoSphere Data Replication (IIDR) for seamless integration with DB2 database server on Linux and Unix.
- Worked with storage administrators to enhance the performance of LOB objects using global mirroring and standardized configurations on Linux and Unix.
- Converted LOBs to inline storage for improved performance and storage efficiency across environments.
- Used db2top and OPM on Linux, Unix, and Windows to monitor performance metrics, analyze results, and provide recommendations.
- Installed and upgraded DB2 z/OS v12 databases and tools, ensuring smooth integration with existing infrastructure.
- Developed and implemented comprehensive backup and recovery solutions, including Image Copy, Incremental Backup, and FlashCopy, to ensure data consistency and quick recovery during outages.
- Secured data both in transit and at rest by implementing encryption protocols to meet GDPR and SOX compliance standards, while managing access controls with RACF.
- Configured storage groups, tuned buffer pools, and adjusted z/OS settings to optimize overall database efficiency.
- Configured and maintained GDPS and Db2 Data Sharing setups to deliver high availability and enable system scalability for enterprise operations.
- Developed and implemented processes and scripts on Linux, Unix, and Windows to automate day-to-day database maintenance activities such as runstats and reorgs.
- Written scripts for tasks like starting CDC services during failovers and extracting data to/from XML and CSV formats for downstream applications, ensuring compatibility with Linux, Unixenvironments.
- Managed and optimized DB2 z/OS databases on mainframe systems, ensuring high availability, scalability, and performance.
- Designed and maintained Job Control Language (JCL) scripts for efficient automation of database tasks, backups, and batch processing.

- Integrated mainframe DB2 data sources into modern platforms by utilizing replication tools like IBM InfoSphere or Q Replication.
- Performed database tuning, indexing, and query optimization on DB2 z/OS to improve processing efficiency and reduce resource utilization.
- Implemented data migration and synchronization processes to enable seamless interoperability between legacy mainframe systems and modern application
- Designed and implemented HADR setups with TSA clusters on Linux and Unix, converting AIX PowerHA clusters to DB2 HADR to reduce costs while maintaining high availability and disaster recovery.
- Documented strategies and failover/failback scenarios for PowerHA to HADR and TSA conversions on Linux and Unix.
- Migrated databases from AIX 7.2 to RedHat Linux.
- Executed regular index reorganizations and rebuilds to enhance database performance.
- Administered disaster recovery plans and business continuity strategies to safeguard critical data.
- Led database upgrades from DB2 V9.7 to V10.5 and from V10.5 to V11.5, upgrading hundreds of databases on Linux, Unix, and Windows platforms.
- Created, modified, and managed CDC subscription sets using CDC Management Console on Linux and Unix, including performing ad hoc refreshes during deployments.
- Used federated cursor loads and DB2 Cross Loader utilities to move data across DB2 family data sources in Linux, Unix, and Windows environments.
- Performed regular backup, restore, and redirected restore commands for environment setup and maintenance on Linux, Unix, and Windows.
- Customized DB2 Workload Manager configurations on Linux and Unix to control query flow and set thresholds for resource-intensive processes.
- Proactively monitored file systems and storage on Linux, Unix, and Windows, submitting RFS requests for additional storage based on data volume projections.
- Played a crucial role in the data team, collaborating with data architects, ETL developers, and analysts to resolve design and performance issues across Linux, Unix, and Windows systems.
- Led technical PowerPoint presentations to educate teams on new DB2 features and implementation strategies for Linux, Unix, and Windows environments.
- Familiarity with PEGA products to enhance database object and query performance on Linux, Unix platforms.
- Used change management processes for implementing updates and incident management to troubleshoot and resolve issues on Linux, Unix, and Windows.
- Documented processes, strategies, and configurations, including automation scripts, HADR setups, and performance tuning practices, applicable across Linux, Unix, and Windows environments.

**Environment:** DB2 LUW v11.1.4.6/v11.5.7, DB2 z/OS v9,10,11,RHEL6.x/7.x/8.x, IBMOptim Performance Manager 5.2, Workload Manager, HADR, TSM, AQT, IBM Data Architect, PEGA V7.x, 8.x, AIX 7.x, Change Data Capture (CDC), Q Replication, Infosphere Data Replication 10.2.1, Shell Scripting.

### Database Administrator

Client: United Parcel Services (UPS)

Location: Mahwah, NJ Responsibilities:

- Configured and managed **HADR** and **TSA clusters** for **DB2**, automating failover processes using the db2haicu utility across **Linux**, **Unix**, **and Windows** environments.
- Installed and customized **DB2 Performance Expert** on **Linux**, **Unix**, **and Windows**, periodically taking snapshots and tuning the database for optimal performance.
- Proactively monitored **PostgreSQL performance** by analyzing queries with pg\_stat, tuning inefficient queries, adding indexes, and rewriting queries as needed on **Linux** platforms.
- Automated performance report generation using DB2 Performance Expert and Optim Performance Manager, ensuring continuous performance monitoring and customer satisfaction.
- Designed and developed logical and physical data models for the Plan Management Portal
  and Customer Decision Support System, collaborating with business analysts and architects
  to ensure robust database structures on Linux, Unix, and Windows.
- Installed and configured Optim Test Data Management on Linux, Unix, and Windows to mask sensitive production data for testing and lower environments.
- Tuned queries in performance testing environments on **Linux**, **Unix**, **and Windows**, ensuring proper indexing and memory allocation for sorting operations before production deployment.
- Developed and deployed database scripts for DB2 and Couchbase on Linux identifying inefficient queries and improving performance through optimizations.
- Implemented DB2 Workload Manager (WLM) across Linux, Unix, and Windows to flag query violations, performed root cause analysis, and tuned queries using explain plans and Index Advisors.
- Optimized queries causing sort overflows by creating optimal indexes and improving sorting performance in production environments across **Linux**, **Unix**, **and Windows**.
- Supported monthly application releases by deploying database scripts in production and worked with AWS resources to scale database infrastructure dynamically based on performance requirements.
- Automated performance monitoring and alerts on Linux, Unix, and Windows using scripts to track query performance and detect anomalies in real time.
- Configured **Streaming Replication** for PostgreSQL on **Linux** and **Windows**, ensuring zero data loss and minimal downtime during failovers.
- Designed database capacity plans to handle growth in multi-terabyte datasets on **Linux**, **Unix**, and **Windows**.
- Secured sensitive data during migrations and testing phases using masking and encryption techniques with **Optim** and PostgreSQL tools.
- Documented all configurations, migration strategies, and optimization techniques to ensure reproducibility and operational efficiency across **Linux**, **Unix**, **and Windows** platforms.

**Environment**: EnterpriseDB/PostgreSQL 9.x, Streaming Replication, EFM 2.x, BART, PEM, pgAdmin III/IV, Navicat for PostgreSQL, pgPool II, Couchbase 6.6.X/6.5, DB2 V10.5 FP 4, DB2 V10.1, Db2 z/OS, SQL Server 2008 R2/2012, Azure, Amazon Cloud EC2, EBS Volumes, Security Groups.

Jul 2006 - Nov 2010

Database Administrator

Client: IBM US Location: Armonk, NY Responsibilities:

As a Database Administrator handling multiple projects and responsible for Analysis, design, development, testing and implementation of customized DB2 solutions for new implementations and upgrades for and responsible for the below activities.

- Design of HADR multiple standby Replication and setup in Db2 Version 10.5,10.1
- Performance monitoring & tuning of applications
- DB2 objects creation and maintenance
- Migration&Fixpack upgradation of DB2 v9.5/9.7 to Db2v10.1/10.5
- Bind the new DB2 Connect Server Mainframe Packages into the DSP Production Sub-Systems using the Windows x 86 Platforms
- Scheduling backup jobs via ESP job scheduler.
- Monitoring the backup jobs, reorg/runstat status using Cronjob settings and ESP Scheduler.
- Field Certification for all supported software and application upgrades
- Develop install procedures for upcoming fix packs / versions include all supported OS levels.
- Automating & Maintenance activities like Backups, Run stats, and Reorgs, Diag Logs through shell scripts, crons and ESP job scheduling tool.
- Database promotes coordination with Developers i.e. Packaging scripts, version control & Post Promote support.
- Restoration of databases online, offline databases.
- Space management i.e. disk space & DMS Table spaces
- Replication configuration, Monitoring, Troubleshooting & Maintenance
- Creation of Development, Test, and Performance (stress) environments
- Ability to lead module/team/project and Improvement in client relationship.
- Linux Install Gateways for all products (Connect Personal Edition, Db2 Connect, Db2 Runtime Client, DB2 Workgroup Server)
- Creating Tivoli Package for the following products Testing Tivoli, DB2 Runtime
- Field Certification for all supported software and application upgrades

Environment: DB2 V9.7 fp 6, Linux 2.6, DB Artisan 9.1, IBM Data Studio, IBM Process Server