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Career Summary

10+ Years of experience in IT and specialised in PostgreSQL, MySQL (Percona, MariaDB and Oracle), MongoDB and Microsoft SQL Server in Various fields like Banking, Telecom, E-commerce, SaaS and manufacturing.

- Excellent communication skills, quick learner and determination to learn new technologies and strong troubleshooting skills
- Experience with 24x7 on call, supporting mission critical production Databases.
- Experience in Leading DBA's and working with geographically diverse teams. Good team player with excellent inter-personal skills and self-motivated.
- Strong Ability to work effectively and independently within tight deadlines and to work well under pressure.
- Good understanding of SRE principles.
- Good hands on experience with administering databases in Docker Containers.

PostgreSQL

6+ Years of experience in handling PostgreSQL databases. Solid understanding of PostgreSQL internals and Architecture, demonstrated experience with PostgreSQL Installation and Upgrades on Unix/Linux operating systems, Database design, implementation, capacity planning, performance tuning and Benchmarking using pgbench.

- Good hands on Experience with Configuring/supporting of streaming replication, PgPool-II as Connection Pooler and Load Balancer, repmgr as a replication management tool.
- Strong experience in optimising, Performance tuning and Benchmarking PostgreSQL Configuration variables using pgbench.
- Strong understanding of WAL and Auto Vacuuming concepts.
- Extensive experience with implementing Backups with pg_dump, pg_dumpall, pg_basebackup and barman. Point in Recovery Backups using pg_basebackup and WAL's.
- Good troubleshooting experience using PostgreSQL's *statistics collector (pg_stat_xx)* and pg_badger in identifying the performance bottlenecks.

Education:

- Master of Science in Communication Engineering (2:1), **Napier University, Edinburgh UK.**
- Bachelor of Engineering (68%, First class) Electronics and Communication Engineering, **Andhra University, India**
- Intermediate (Mathematics, Physics and Chemistry), **Board of Secondary Education Andhra Pradesh 82%**
- 10th Standard, Board of **Secondary Education Andhra Pradesh (77.66%)**

Certifications & Training:

- M202: MongoDB Advanced Deployment and Operations from MongoDB University September 2014
- M102: MongoDB for DBAs from 10gen (The MongoDB Company) June 2013
- Hands-on workshop with Elasticsearch, Logstash and Kibana from Elastic.
- Installing and configuring Cassandra from DataStax Academy - September-2014
- Microsoft Certified Technology Specialist (MCTS) - August 2010 Implementation and Maintenance of Microsoft SQL Server 2005 Enterprise Edition
- Cassandra trainings from DataStax Academy - September-2014
 - DS101: Introduction to Apache Cassandra™
 - DS210: DataStax Enterprise Operations with Apache Cassandra™

Career Summary: Non-PostgreSQL DBMS

MySQL

- Strong administering experience in MySQL/Percona/MariaDB Database servers in a mission critical environment.
- Expert at troubleshooting MySQL/MariaDB related issues (lock contention, high load, slow queries, performance, etc.) and identifying root causes using utilities in percona toolkit, innotop and Linux performance monitoring tools.
- Design maintenance plans and regular Health check.
- Good Hands-on experience with designing and implementing database replication (Traditional, GTID) strategies like Master-Master /Master-Slave replication for Load Sharing.
- Experience with MariaDB MaxScale (Readconroute, Readwritesplit Routers) and GitHub-Orchestrator.
- Strong experience with performing DDL's, Schema Changes without downtime.
- Backup Strategy for Point in time Recovery using mysqldump/MySQL Enterprise Backup (mysqlbackup) and Binary logs AND Xtrabackup and Binary logs.
- Experience with Nagios, Oracle Enterprise Monitor, Zabbix, NewRelic, Kibana monitoring tools.

MongoDB (NoSQL)

- Trained and Certified on MongoDB for DBAs from 10gen and MongoDB Advanced Deployment and Operations from MongoDB University.
- Good hands on experience on MongoDB Replication and Knowledge on Sharding and Map Reduce concepts.
- Experience in designing and implementing Backup/Recovery strategies.

Microsoft SQL Server

- Design Installation of SQL Server 2000, 2005 and 2008. And Experience in MS SQL Server upgrades from MS SQL Server 2000 to MS SQL Server 2005 and MS SQL Server 2008
- Proficiency and Expertise in SQL Server Replication - Snapshot, Merge and Transactional
- Performed Log Shipping and implemented Replication as High Availability techniques and Experience in Database Mirroring as Disaster Recovery Solution.
- Expert in automating process by creating jobs, and error reporting using Alerts, SQL Mail Agent. And hands on experience in implementing strict Security Policies.
- Hands on experience in using the Linked Servers to retrieve the data from different SQL Instances and RDMS like MySQL and PostgreSQL
- Good hands on experience with Log file maintenance, Space growth analysis & Capacity planning.

RECENT WORK EXPERIENCE

Role: Senior PostgreSQL DBA/ Subject Matter Expert(SME)

(July 2017 – Present)

Organisation: Standard Chartered Bank, Singapore

Primary Responsibilities

- Primary responsibility is to design and architect a future-proof, built-in redundancy and scalable architectures.
- Continuously train and mentor BAU and Oracle/MSSQL DBA teams with PostgreSQL Administration concepts
- Maintaining a good rapport with Development teams and understand their requirements.
- Motivate Development teams to understand the capabilities and features of PostgreSQL.

Tasks Performed

- Administered EnterpriseDB and Community PostgreSQL database instances on VM and Docker Containers.
- Migrated Oracle databases to PostgreSQL using Ora2Pg Tool. And from DB2 Databases to PostgreSQL using DB2toPg tool.
- Designed and Configured PITR (Point in time Recovery) Backup solutions using BART(EnterpriseDB), BARMAN(PostgreSQL)
- Automated patching/minor-upgrades of PostgreSQL using Ansible.
- Change reviewer for all the PostgreSQL changes.
- Review High Level and low-level security standards for PostgreSQL in the bank.
- Benchmarking PostgreSQL Configuration for different workloads.
- Setup log monitoring using PgBadger
- POC'd PgBouncer as a Connection pooling solution.
- POC'd Monitoring solution using Prometheus exporters, Prometheus server and Grafana

PostgreSQL

- Setup, Configure, support Streaming Replication, Automatic failover for PostgreSQL and PgPool-II using watchdog and repmgr.
- setup the PostgreSQL Infrastructure for Production (2 PgPool Nodes, 3 PostgreSQL Nodes), BI, Development and Staging Environments.
- Coordinated with software development teams and TPM's for fixing technical issues and database errors.
- For better RPO Configured Point in time recovery (PITR) Database physical backups using pg_basebackup and WAL's.
- Performance tuned, benchmarked using pg_bench.
- Configured Database monitoring and alerts using Zabbix and NewRelic to check the Health of Database servers
- Conducted complete analysis of database capacity and performance requirements.
- Implemented Security Best Practices for all PostgreSQL Database Servers.
- Automated regular database maintenance jobs on all the live Database servers and Anonymization/masking of sensitive data on Dev/staging environments.
- Configured pg_badger to Analyze Overall Database activity.
- Maintained detailed technical documentation of database architecture as per business requirements in Confluence.

MySQL

- Administered different flavors of MySQL (Oracle, Percona n MariaDB).
- Tuned InnoDB variables using Sysbench as Benchmarking tool.
- Evaluated and Upgraded 5.6 Database servers to 5.7.
- Setup and Configured GTID based Multi-Source Replication.
- Used Percona Toolkit and Oracle-MySQL utilities to perform all MySQL Administration activities like Online schema changes, User migrations and replication setups
- Maintained detailed technical documentation of database architecture and Installation/Upgrades/Replication-failover configuration steps as per business requirements in Confluence.
- Validated and Implemented MariaDB-MaxScale as a Proxy and HA solution.
- Validated Orchestrator for HA Solution and currently, validating group replication.
- 24x7 on Call Support, Lead the team of 4 DBA's in Singapore.

Primary Responsibilities

- Mainly responsible for providing operational database services to the organization primarily focusing on PostgreSQL, MongoDB and MySQL Databases
- Own, track and resolve database related incidents and requests within SLAs.
- Review service related reports (e.g.: database backups, maintenance, monitoring) daily to ensure service related issues are identified and resolved within established SLA's
- Respond to database related alerts and escalations and working with Engineers to come up with strategic solutions to recurring problems.
- Proactively research and locate the necessary tools and processes to identify troublesome trends as they develop, and track problems to resolution.
- Effectively adapt to rapidly changing technologies and apply it to business needs; merge multiple tools together to solve problems.
- Part of the OSDBA team 24x7 on-call shift rotation to troubleshoot production/performance issues, including database recoveries and off-hour database maintenances as required.

Detailed Tasks Performed on each Database Technology**PostgreSQL**

- Installed, configured and upgraded PostgreSQL Server and related products.
- Implemented, refined and maintained database replication and failover.
- Developed, refined and monitored recurring database jobs/scripts.
- Query analysis and optimization.
- Setup PostgreSQL database backup's autopostgresqlbackup (pgdump).
- Maintained and administered PostgreSQL production and Development servers.
- Performed load/stress/performance benchmarking with PostgreSQL on a system setup using PGBENCH

MySQL

- Maintained and Administered MySQL Instances in RealPage production servers.
- Designed MySQL Upgrade Strategy from MySQL 5.5 to 5.6 and MySQL 5.0 to 5.6 and implemented them in all the Production and Dev boxes.
- Performed Benchmarking using sysbench and mysqlslap before and after MySQL Upgrade with different MySQL Configurations.
- Designed and Implemented a Backup strategy using XtraDBBackup and mysqldump
- Configured Master-Slave Replication.
- Performed Memory based tuning on Production servers.
- Designed and implemented a strategy to migrate the tables from MyISAM to InnoDB Storage Engine.
- Performance Tuning and Query Optimization using native monitoring and troubleshooting tools like Explain, Show status, innotop, iostat, mpstat, oprofile and analysed general_log & slow query logs using mysqlsla.

MongoDB (NoSQL)

- Architecting, implementing, performance tuning and troubleshooting all aspects of Mongo DB as part of the product offering.
- Worked closely with development on implementation of queries, collections and documents.
- Implemented Mongo Performance best practices.
- Upgraded Mongo software to latest patch releases and revisions.
- Architect and Implemented MongoDB replica set model to best fit application performance, reliability and usage.
- Defined and implemented backup and recovery strategies.
- Worked with documentation team to ensure any issues effecting functionality are properly reflected in documentation.
- Implemented and maintained database security (create and maintain users and roles, assign privileges)

Role: Database Administrator (MySQL and SQL Server)

(March 2012 - March 2013)

Organisation: NetXcell Ltd, Hyderabad, India

- Primarily Responsible for the design, management and support of MySQL and SQL Server databases for critical Telecom applications developed by the Organisation for major Telecom Companies across the world.
- Lead the DBA team and Mentored and trained DBA's new MySQL and SQL Server Capabilities and Features.
- Designed and Implemented backup and recovery solutions using MySQL Enterprise Backup (mysqlbackup), XtraDB backup and mysqldump.
- Configured Database Maintenance plans like Regular Backups, Index optimization, Statistics maintenance and SQL Server Integrity Check.
- Implemented Strict Security Policies on the servers.
- POC'd High Availability Solution using DRBD and Heartbeat with automatic failover

Role: Application Support DBA, SQL Server DBA

(November 2008 – December 2011)

Organisation: DBIA Solutions, Edinburgh, UK

Primarily responsible Managing and Administering SQL Server Databases on 2000, 2005 and 2008 Versions