O. SULMAN AHMED

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**Work Experience**

**Company: Abu Dhabi Islamic Bank (Abu Dhabi, UAE)**

**Title: Cloud Data Architect**

**Dates: August 22 - Present**

**Environment: Azure, Cloudera, MongoDB, PostgreSQL, Oracle, MongoDB, SQL Server, Azure Synapse, Azure Data Lake, Data Factory, Power BI**

ROLE AND RESPONSIBILITIES:

* Supplying architectural leadership for technology solutions, data architectures, data warehouse, cloud and infrastructure initiatives.
* A key initiative is the migration of all the on-premises applications, databases and Cloudera platform into Microsoft Azure.
* Design and develop data ingestion components and ETL solutions to collect data from various internal sources for reporting costs.
* Documenting and ensuring data governance processes and data security standards are established and followed with auditing in place
* Hands-on implementation on multiple projects and advising/mentoring on best practices regarding data modelling, architecture, migration and securing data.
* Development of cloud data diagrams and designing PoCs on proposed architecture
* Nominated as the Cloud Evangelist within the team to discuss with C-suite stakeholders on the benefits migrating to the cloud with focus on data

**Company: UBS (Zurich, Switzerland)**

**Title: Project Data Consultant**

**Dates: April 22 – July 22**

**Environment: Oracle 19c, EDB Postgres, Cloud Control 13c, Percona, Shell scripting**

ROLE AND RESPONSIBILITIES

* To assist in the upgrading of Oracle database in a team of over 50 covering over 1000 databases
* Migration of Oracle to Postgres

**Company: NHS (London, UK)**

**Title: AWS Postgres Data Lead**

**Dates: January 22 – August 22**

**Environment: EC2, Aurora and RDS Postgres v9.6-v13.4, Cloudwatch, Performance Insights, DataDog, Gitlab, Liquibase, Confluence, Jira, Hashicorp Vault, Hikari Pooling, PGAdmin**

ROLE AND RESPONSIBILITIES:

* A complete review of the DB infrastructure for the UK’s national medical health service deployed in a micro-service architecture and the data repository running in RDS Postgres implementations for both DEV and PROD landscapes documenting as-is
* Full ownership of all historic Postgres performance issues within the organisation assigned, resolved and documented
* Enhancement of current PROD DB solutions identified and implemented for critical business infrastructure in the form of deploying multi-AZ architecture
* Performing assessments/POC and establishing an execution/development plan prior to PROD DB
* Investigating current access, users and roles, recommending restricting/locking access, installing mandatory extensions, documenting DB framework and setting optimal Postgres parameters for memory and system
* Reviewing DB and query performance, executing and reviewing analyse plans, implementing best practices and advising DevOps on integrating with site reliability capabilities.
* Evaluating existing AWS CloudWatch and Datadog monitoring parameters, upgrade existing monitoring tool database status/alerts and address any issues accordingly working towards building a better monitoring and metrics for DevOps team
* Action BAU tasks as allocated in the DBA ticketing tool and ensuring regular progress updates are given.

**Company: British Airways/Tata Consultancy Services (London, UK)**

**Title: DataOps Postgres**

**Dates: August 21 – August 22**

**Environment: Salesforce, Heroku Postgres 13.3, Remora, Solar Winds, AWS EC2, S3, Glue, EBS, Cloudwatch, GitLaB, Apache Splunk, Kafka, Ansible, Confluence, PGAdmin**

ROLE AND RESPONSIBILITIES:

* Collaboration between PWC and a world leading airline to revamp legacy applications by data migration and implementation of both Salesforce and Salesforce Marketing data into a Customer Profile Master DB
* Identifying data from multiple applications, capturing changes ingesting high volumes of data, deduplication, uploading into S3 and consolidating into 1 source (CPM DB)
* Automating DB tasks across the full CI/CD lifecycle to reduce the manual involvement to setup
* Setting up and enabling encrypted backups at will via Remora deployed with AWS EC2 HA and S3 to backup to and restore from Heroku
* Troubleshooting performance queries and securing access to the DB, documenting all areas of the DB
* Deployment of testing and deployment DBs hosted on AWS EC2 with backups via pg\_basebackup
* Setup of metrics via Solar Wind, splunk for logging, performance and querying via Heroku CLI and Dataclips

**Company: Unifonic (Dubai, UAE)**

**Title: Cloud Data Consultant**

**Dates: December 21 – April 22**

**Environment: RDS Postgres 12.7, mySQL, Confluence, CloudWatch, DBeaver**

ROLE AND RESPONSIBILITIES:

* Reviewing and optimising DB architecture for high volume partitioned and heavily queried DBs
* Advising and assisting global internal teams to effectively solve issues and ensuring issues are fully resolved
* Assisting in solving poor performing implementations by reviewing and troubleshooting DB and system configurations and executions
* Researching, recommending and leveraging DB solutions and prioritizing time effectively
* Understanding the full range of features that make up AWS RDS Postgres and mySQL in a multi-master low latency architecture
* On-call for critical support issues

**Company: Avaloq**

**Title: Cloud Data Lead (Zurich, Switzerland)**

**Dates: April 21 – February 22**

**Environment: AWS, S3 Glacier, VPC, EC2, EBS, EKS, RDS Postgres, RDS**

**mySQL, Oracle, Cloudformation, Cloudwatch, Fluentd, GitLaB, Jira/Confluence, Prometheus, AWS Storage Gateway, Scrum, CI/CD**

ROLE AND RESPONSIBILITIES:

* Working with the Data Architect team to design, build, optimise and automate High Availability and Disaster Recovery multi-AZ deployments with specialised Oracle 19c DBs via CloudFormation in a VPC with EC2, EBS & S3 architecture
* Ownership on the backup methodology, automation and rotation of backups in cloud storage with costs analysed.
* Documenting the RPO, RTO & SLAs, runbook to initiate restore and recovery steps and manual backups
* Scripting automation for builds via Shell, SQL and working with infrastructure as a code team using CF & Terraform
* Analysing existing architecture and identifying where separation into microservices can be achieved shifting into Kubernetes (metrics and log aggregator)
* Identifying & documenting metrics for monitoring with Prometheus hosted in EKS, visualised with Grafana and PagerDuty for alerting
* AWS DMS from Oracle to RDS Postgres and mySQL DBs with Performance Insights enabled
* Lead, coordinate and help to implement DB changes for in-house code releases and for DB maintenance releases
* Performance tuning, structured logging/ debugging and DB migrations
* Securing DBs via roles/privileges and reviewing best practices

**Company: Bank of America (Virginia, USA)**

**Title: Principal Data Architect**

**Dates: November 20 – February 21**

**Environment: mySQL 8 (Innodb cluster), Red Hat 7, Splunk, OEM, Mattermost**

ROLES AND RESPONSIBILITIES

* Re-designing the mySQL infrastructure currently operating on mySQL v8 bi-directional 10 node innodb cluster for the banks internal chat application which saw heavy use due to remote working
* Assesses application, environment, network, and storage to identify bottlenecks, improving responsiveness, and reducing single points of failure
* Working with Solution Architect for infrastructure optimization and design
* Documenting HLD & LLD for the existing architecture and des
* Work to establish best practice and methodology in the area of architecture, design and development
* Tuning database via analysing existing DB parameter configurations, queries via slow log and working on providing recommendations for DB improvement
* Working on identifying & isolating read replica lag via logs provided and reviewing recommendations by Oracle
* Coordinate and work with other technical staff to develop database architecture coding standards, and quality assurance policies and procedures

**Company: SIX Swiss Stock Exchange (Zurich Switzerland)**

**Title: DevOps Database Engineer (Director)**

**Dates: July 20 – Oct 20**

**Environment: BlockChain, Cloud Engineer, OpenShift, Azure, Postgres 9.6 – 12.3, Kubernetes, Helm Charts, Ansible, Gitlab CI/CD**

ROLES AND RESPONSIBILITIES

* Design the data policy revolving around backups and privileged retrieval in a zero trust environment for financial audit legalities
* Evaluate & implement Cloud strategies to host Postgres HA & DR infrastructure with global regulation covering GDPR & Swiss data localization
* Joining forces with other departments and teams to setup appropriate roles for data access based on requirements for operations within respected
* Reviewing emerging technologies, deploying continuous integration via Gitlab for streamlined deployments, versioning, pipelines & runners
* Setting up Azure SQL Server DB, Postgres (Crunchy Data), MS SQL Server in HA configurations, data influx & data conversions between diff. DB technologies.
* Scripting in Ansible/Helm Charts for automated deployments with an inclusive architecture surrounding the DB on RedHat OpenShift platform
* Implementing architecture on Docker managed by Kubernetes for instant deployment and minimal time to setup for continuous delivery
* Detailing the technical architecture for C-suite executives for sustained reliability across hybrid cloud environments

**Company: Huawei/Sunrise (Zurich, Switzerland)**

**Title: Enterprise Data Consultant (Security & Encryption)**

**Dates: October 18 – June 20**

**Environment: Postgres 9.6 – 10.x, Oracle 10g - 12c, SQL Server 2012- 2016, Maria DB/mySQL**

ROLE AND RESPONSIBILITIES:

* Working with Sunrise & Amdocs to encrypt data hosted in Oracle & SQL Server DBs
* Data Redaction deployed in Docker using MongoDB with change streams
* Build CMDB for Data landscape hosting over total of 1600 Oracle DB’s & SQL Server DBs combined.
* Legacy Oracle OID/LDAP migration from physical to virtual
* Develop KPI’s & adhere to SLA’s. Strategize & deliver patching, migration approaches for the entire data infrastructure.
* Identify Oracle & SQL Server DBs as critical to business and embed in monitoring Cloud 12c & MS SCOM.
* Maintain and build upon the HA in DG for Oracle & AOAG SQL Server DBs
* Performance tuning of DBs, Snapshot Backups, Clones & Restores
* Build DBaaS for developers to deploy SQL Server 2016 DB’s & Postgres with Unix team via Ansible.
* Identify Oracle DB’s eligible for migration to Postgres and write up license cost savings
* Working on Nagios monitoring for Postgres and deploying Bucardo
* Setting up Barman for backups, Streaming replication for the Postgres landscape & pgRewind for vacuum without locks
* Writing up best practices and deployment documentation for the Postgres infrastructure.
* Developing scripts on Oracle & SQL Server for health monitoring

**Company: Registers of Scotland: Land & Property (Edinburgh, Scotland)**

**Title: DevOps Data Lead**

**Dates: March 2018 – Sept. 2018**

**Environment: Postgres 9.x-10.3, Oracle 10gR2-12cR2, OEM 13cR2, SQL Server 2008-2017, Informix, MongoDB 3.6, mySQL, Reddis, InfluxDB, Grafana, Weblogic, Pentaho, Ansible, Jenkins, OpenShift, Dockers, Jira, Confluence & AWS**

ROLE AND RESPONSIBILITIES:

* Leading team of DBA’s managing full ownership of databases & middleware infrastructure implementing best practices on all DBs with mindset to secure all databases and optimise within RoS; digital rebuild of environment.
* DB license management; re-negotiating and documenting support agreements for Oracle, Postgres & MongoDB
* Building the Postgres landscape monitoring using combination of log scrapping tools – Grafana, Prometheus, InfluxDB, Nagios – documenting assessment options to management.
* Enhancing security on the MongoDB landscape and deploying replica sets
* Streamlining backups with PITR management for MongoDB via Oplog & sharding collections
* Working with Enterprise Architects & Security team to secure the database & OS landscape per environment using CIS Benchmarks and Nessus.
* POC of concept with AWS IAM and deploying mySQL & Postgres RDS.
* Building Oracle Enterprise Manager on 13cR2 in 12cR2 PDB for the Oracle landscape – trialing Medora PostgreSQL plugin for OEM
* Ownership and managing several projects under Digital Transformation banner 2020 – including Pentaho Data Analytics project – working with Hitachi to capture source data in realtime from variety of databases streaming into Postgres v10.
* Working with Enterprise DB & 2nd Quadrant deploying & upgrading all Postgres clusters across the IT landscape and hardening against unauthorized access.
* GDPR focus on all DBs, attending Enterprise Risk Assessment meetings and advising on securing DB’s containing PII data via encryption (pg\_audit), SSL certificates for securing data in flight, authenticated accounts with appropriate privileges.
* Implementing a timed backup methodology utilizing variety of tools (Barman, pg\_logical & pgbackrest)
* Database replication setup using RepMgr on Postgres DBs, SQL Server AOAG, DataGuard Passive.
* BAU activities, working to resolve all issues and tickets raised for work to be carried out on the DB landscape, currently managing approx. 500 DB’s – 5 environments per DB (2 testing arenas, 2 pre-prod build and PROD).
* Building Postgres builds for automating DB builds and deploying via Ansible to assist Developers to be self-contained teams.
* Moving away from hot standby in PostgreSQL builds to streaming replication and upgrading builds with partitioning to v10.3
* Performance tuning reports and operation currently utilizing pgBadger

**Company: ADS Securities: Forex & Investments (Abu Dhabi, UAE)**

**Title: Data Lead/System Analyst**

**Dates: April 2015 – October 2017**

**Environment: Postgres 9.x, Oracle 11g/12c, Oracle R12, RAC, SQL Server 2012-2016, mySQL, MongoDB, DB2, Salesforce, Linux (CentOS), SDL**

ROLE AND RESPONSIBILITIES:

* Data Lead on Data Governance, Infrastructure, Security, Administration and auditing, providing L3 support to resolve production issues. Supporting developers - SDLC
* Managing global data landscape and team in New York, Singapore, Tokyo, London & Abu Dhabi highly focused on security and latency on Postgres 8.x - 9.x.
* 19 Postgres TickDB clusters with PRODs running with in-memory cache and fine tuning internal parameters for low latency
* Setup DEVOPS deployment of Postgres (pgc) and synchronous streaming replication with automated HA/DR (repmgr).
* Automating & encrypting backups via 3rd party modules for hot/PITR backups (BARMAN) on all PROD deployments and restorations on lower environments for SDLC.
* Postgres Data landscape configured for high volumes using pg\_pool-2 and linux setup for data centric layouts (segregating data, indexes and WAL partitions for IOPS)
* Performance tuning (pgbench/postgresql-contrib) and partitioning tables for large data loads (Parent/Inherit) daily.
* Alerts and monitoring setup in-house with Zabbix, Graphite & Grafana, scripts written to monitor DB health, uptime and performance.
* Analysing and documenting current data influx, capacity and storage management, auditing, hardware scopes, backups and replication across numerous DB technologies.
* Designing & deploying SQL Server DBs for SSIS, SSRS & SSAS from Salesforce & Postgres financial streams
* Data aggregation, archiving and purging, complex reporting from multiple DBs and sources, data feeds into CRM
* Migration of on-site Postgres, mySQL and DB to AWS and SQL Server to SQL Azure.
* Writing health and sanity checks on the Postgres DBs & Oracle Data Warehouses, 300+ SQL Server DBs, MongoDB, & mySQL
* Designing, deploying and testing DR for every Database, performing planned switchovers every quarter.
* Setting up High Availability (RAC & AOAG) and monitoring data loads across the DB clusters inc. DG/DR.
* Segregation of duties, user privileges, data quality management and documenting best practices & procedures.
* Managing licensing agreements, negotiating contracts, vendor meetings, managing vendors & staff, organising CAB meetings and setting up of SLA’s.
* Installations, upgrades, patching and migrations on Postgres, SQL Server, MongoDB, mySQL, Oracle, SQL Azure.
* Reviewing execution plans, re-writing queries, automating workloads, load balancing on secondary servers.
* Building & re-designing Postgres, Oracle, SQL Server DB’s from the ground up. Re-building current DB’s, improving DB security and administration and deploying backup methodology and tests (time to restore)

**Company: International Bank of Qatar (Doha, Qatar)**

**Title: Oracle Data Architect/DBA**

**Dates: June 2013 – December 2014**

**Environment: Oracle 9iR2/10gR2/11gR2/12c, MS SQL Server, DB2, OEM/Grid, Dell Toad, AIX/Win, VMWare, RMAN, SAN Replication, Clustered, DataGuard, Managed Engine ServiceDesk, Oracle iFlex, SAP Business Objects XI**

ROLE AND RESPONSIBILITIES:

* Lead DBA on call 24x7 managing the entire Oracle, MS SQL & DB2 landscape consisting of 14 live production mission critical Oracle-AIX active data guarded environments, 28 Oracle lower environments, over 100 SQL Server VMWare production and test instances and Data Warehousing/BI DB2 solution.
* Primary project to rebuild every single production Oracle DB with minimum downtime in order to pass internal and external Oracle auditing, comply with Oracle licensing requirements & enabling security.
* Following Oracle best practices on installation, upgrading DB versions, configuration & restoring data. Secondary project to reduce DB footprint due to no administration for several years, created archive DB’s, implemented RMAN full &incremental backups to reduce costs on storage.
* Managed multiple projects on the go, supporting BAU via tickets during business hours & rebuilding production DB’s out of hours whilst on call performing 15hrs per day and working weekends, performance tuning of queries and troubleshooting issues for multiple SQL Server & Oracle instances.
* Monitoring DB’s via internally written sanity scripts on health, audit & security compliance, storage, performance &backups.
* Cloning and exporting/pumping instances for lower environment refreshes on a weekly basis, replication of data via scripting from source DBs to ODS. Installing and upgrading new DB versions for application testing upgrades 11g R2 & 12c. Heavily documented policies, procedures and disaster recovery techniques.
* Analysed interconnectivity of servers/DBs, retiring legacy systems and consolidating servers to create a more streamlined infrastructure primarily for the purposes of ETL and data warehousing, Data cleansing invoked in ETL procedures by consulting with stakeholders (business & app owners) populating mission critical DB’s for anti-money laundering, mobile banking and central banking reporting.

**Company: Ford Motors (Essex, UK)**

**Title: Senior Oracle DBA**

**Dates: April 2010 – December 2012**

**Environment: Oracle 9i/10g/11g, MySQL, Oracle Apps DBA (R12), Grid Administrator, Solaris, Linux, AIX, Windows Server, VMWare, RMAN, DataGuard, Quest Toad & PAR, Remedy Service Desk**

ROLE AND RESPONSIBILITIES:

* Global team installing, managing, administrating & tuning over 400 live DB’s via Remedy Incident Management of QA, Test & Production DB's. Primary objective to lead in migration of all UK DB’s to the US Datacentre across Unix, Linux & Windows responsible for. Data migration via RMAN, Datapump and ETL techniques.
* Detailed project planning, management and successful execution to tight deadlines.
* New build setup from single servers to shared server and virtual environments on Unix & Linux only.
* Performance tuning via AWR and ADDM performed on all builds due to migration of data/distance, new OS environments & upgrades to DB software.
* Planned on-call disaster recovery tests/switchover on clustered Solaris clustered & data guarded environments.
* Patching and upgrading DB’s, listeners and OEM agents. Created & implemented DB monitoring scripts to be run on all DB’s globally for audit purposes; improving security & health of all the DB’s.
* Grid Administrator deploying templates for monitoring DB's.

**Company: Credit Suisse (Zurich, Switzerland)**

**Title: Senior Oracle DBA**

**Dates: September 2008 – September 2009**

**Environment: Oracle 9i/10g/11g, 11g RAC, Oracle Internet Directory, Grid, RAC, OEM, Toad, Unix**

ROLE AND RESPONSIBILITIES:

* Primary DBA in Investment Banking & Private Banking sectors managing over 25 critical databases for 5 projects based globally.
* Responsibilities include providing 24-7 on-call support for over 500 DB’s via weekly rotations. RMAN catalog backups/duplicating/recovery of entire DB’s and specific point in time via Veritas NetBackup.
* Automating, monitoring, performance tuning, configuring & installation of customised 10gR2 & 11g DB’s through specialised CSS V2 shell scripts.
* Patching & upgrading Oracle versions 10gR2 DB & agents to 10.2.04 for GRID monitoring. Maintaining 2 node RAC infrastructure, customer support/recommendations on DB’s during crisis management, upgrading to new Oracle releases. Datapump schemas, tablesu, and table spaces frequently via scp transfers and network links.
* Auditing of DB's and schemas, partitioning, dump file imports/exports, raising SR's with Oracle via Metalink, team discussions on improving current architecture/Oracle setups.
* Statistics gathering, index recompilations, online table moves, improving RMAN parameters, documenting policies, procedures and DB management for handover/ DBA's on-call.

**Company: MFI / CIBER Novasoft (London, UK)**

**Title: Oracle Project Manager**

**Dates: March 2008 – August 2008**

**Environment: Oracle 9i/10g, MS SQL Server OID 10gR4, Grid 10g, AIX, SAP BI 7.3, SAP ECC 6, SAP Basis. VMWare, MS Project, Business Objects XI**

ROLE AND RESPONSIBILITIES:

* SAP Consultancy team lead in DB migration of 14 live critical Oracle DB’s from UK to US running under SAP BI & ECC 6. 24/7 Production support for DB’s managing team of 5, Oracle Internet Directory upgraded to 10g and SAP BI dual stack (ABAP & Java) installed and configured on SQL Server and Oracle DBs & ECC 6 running on Oracle 10g.
* Complete documentation of infrastructure, policies, installation configuration, planning migration schedule via MS Project. Analysing applications interfacing with DB’s, user access via networking & improving security via Oracle Client & Citrix deployment. Automating Oracle DB alerts and notifications thru Grid/DB Console with SMTP server to Operations Team & DBA team & scheduling backups.

**Company: ChequePoint Financial Services (London, UK)**

**Title: Oracle DBA Manager**

**Dates: January 2004 – March 2008**

**Environment: Oracle 9i/10g, Developer 10g, Windows 2003 Ent/ Red Hat Linux AS 4, Toad v9**

ROLE AND RESPONSIBILITIES:

* Working alongside the Senior Developer/Architect to install, configure & administrator production & development OLTP/DW (star schema) Oracle databases. Ensure high availability 24x7, minimal downtime via patching, implementing & testing solid backup & recovery strategies.
* Perform user & system security checks; validating data integrity rules, administrating user roles & privileges & system maintenance. Import & Export data via Oracle toolset and utilise SQL\* Loader for Extract, Transform & Load (ETL) procedures. Cloning DB via RMAN, set up/administrator standby DB & migration to future Oracle releases.
* Pro-active approach in maintenance of all DB’s, Performance Tuning
* ETL of data from a variety of sources & software vendors, Disaster Recovery & RAC implementation, Documentation of DBA procedures, Installed Oracle Management Server (OMS) for enhanced administration, provided all forms of DBA support to organisation.
* Installed Oracle Identity Directory for LDAP (OID) via 10giAS stack, Oracle Grid Management & Agents to interact with 9iR2 DB’s through 10gR2 OEM. Solely responsible for maximum availability architecture (MAA) via Data Guard on Production platform & configured/installed RAC on Development.
* Developed shell & DB scripts to automate functions of DBA and secured all code in DB by wrapping/encryption.

**Company: Nicon College of Computer Science**

**Title: Oracle DBA**

**Dates: January 2003 – December 2003**

**Environment: Oracle 9i, Windows XP/2003 Std, Red Hat Linux AS 3.1**

ROLE AND RESPONSIBILITIES:

* Upgrade Oracle 8i to 9i and move DB from Windows platform to a Red Hat Linux OS. Solid Oracle network management between Oracle on Linux & Oracle Client on Windows XP.
* Utilise 3rd Party backup software Legato to perform archiving and RMAN daily backups.
* Perform data import with Excel/CSV files via SQL\* LOADER, update of tables and develop scripts to administrated DB functions.
* Create roles and profiles to assign users dependent on access levels, creation of tables/table spaces and testing of backups.