

Shashank Vengala

Database Developer

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I am an immediate joiner and a results-driven Data Engineer with over 3+ years of experience in database development and administration, specializing in PostgreSQL and end-to-end data pipeline implementation. I have proven expertise in designing and analyzing data warehouses, optimizing SQL queries, automating data ingestion pipelines, and enabling enterprise reporting solutions using Power BI and Tableau. I am adept at working in both Windows and Linux environments, with hands-on experience in ETL orchestration tools such as Airbyte, DBT, and Airflow.

SKILLS

- Postgresql
- PI / Sql Development
- Materialized Views
- Data Build Tool
- Power BI
- Grafana
- Postgresql Developer
- Triggers
- SQL Server
- Airflow
- DAX
- Tableau
- SQL
- Views
- Postgresql Database Administration
- Airbyte
- Apache Superset
- Python

CERTIFICATION

- Java full stack
- PostgreSQL Database Administration on Windows/ Linux- Part 2
- PostgreSQL Database Administration on Windows/ Linux- Part 1

WORK EXPERIENCE

Database Developer - Nexgensis Technologies Feb 2024 - Present

Project 1: Quality Management System (QMS) Reporting for SII

Objective:

QMS Reporting was aimed at monitoring operational and regulatory Quality KPIs at the Serum Institute of India. The solution focused on designing a scalable data warehouse to consolidate data from multiple systems, ensuring actionable insights and compliance reporting through interactive dashboards.

Roles and Responsibilities:

- Designed a 3-tiered data warehouse architecture (Bronze-Silver-Gold layers) based on best practices in PostgreSQL for scalability and maintainability.
- Developed DBT models to standardize transformations and implement audit logs for every layer of the data pipeline.
- Migrated critical operational datasets from Microsoft SQL Server to PostgreSQL using Airbyte, maintaining schema evolution and data integrity.
- Built materialized views with incremental refresh strategies to optimize reporting layer performance for real-time KPI dashboards.
- Created and managed Airflow DAGs (Directed Acyclic Graphs) to orchestrate ETL workflows, error handling, and data quality checks.
- Implemented deduplication, automated vacuuming, partitioning strategies to reduce query times by 40%.
- Developed and published interactive Power BI dashboards for tracking Quality KPIs, with drill-through and slicer functionalities.

- Designed intuitive data models in Power BI to support dynamic reporting and real-time insights.
- Created DAX measures and calculated columns to drive business logic within Power BI reports.
- Integrated database optimizations with Power BI refresh cycles to ensure near real-time reporting.
- Worked closely with stakeholders to gather dashboard requirements and deliver actionable, easy-to-use visuals.

Tech Stack: PostgreSQL, DBT, Airbyte, Airflow, Power BI

Project 2: DataZen — Data Quality Monitoring Platform

Objective:

DataZen is a comprehensive data quality and reporting project designed to ingest data from various sources, perform rigorous data quality checks, and store the results in a PostgreSQL database. The project focuses on delivering high-quality, procedure-driven reports and dashboards within the application's executive interface, providing both real-time insights and end-of-day statistics on data trust scores across different levels.

Key Responsibilities:

- Optimized and tuned database queries to enhance the performance of data quality checks and reporting processes.
- Developed complex stored procedures, functions, and triggers to automate data validation and quality checks.
- Created and managed views and materialized views tailored to reporting requirements and data aggregation needs.
- Designed and developed custom reports and dashboards that offer real-time insights into data quality, supporting decision-making for executives.
- Automated backup processes using shell scripts, scheduled through Cron jobs to ensure data integrity and availability.

Tech Stack: PostgreSQL, Power BI, Linux, Shell Scripts

Postgresql Developer (Database Administrator) - Procreate Techno Systems

Jul 2021 - Aug 2023

Project: Emergency Health Services

Objective:

The project focuses on providing emergency health services through multiple modules, primarily the Emergency Response Officer (ERO) module, which handles emergency calls and dispatches ambulances to incident locations.

Key Responsibilities:

- Optimized and tuned queries to enhance the performance of the database.
- Developed complex stored procedures, functions, and triggers to support the ERO module and other related functionalities.
- Created and managed views and materialized views based on specific project requirements.
- Utilized DBLink functions to develop queries that meet cross-database requirements.
- Developed various reports tailored to the healthcare domain, supporting critical decision-making processes.
- Automated backup processes by writing shell scripts and scheduling them using Cron jobs.
- Collaborated with clients to understand their requirements and designed databases that capture all necessary fields as per their specifications.
- Ensured regular maintenance of the database through vacuuming and re-indexing tables to maintain optimal performance.
- Managed database roles and privileges, ensuring secure access for users connecting to PostgreSQL.

Tech Stack: PostgreSQL, Shell Scripting, DBLink, Cron Jobs

EDUCATION

2019 B.Tech/B.E. | Electrical

Jawaharlal Nehru Technological University
(JNTU)

Marks - 60%