Employee_ID: 1286

Data Engineer

TECHNICAL SKILLS

Procedural Language: PL/SQL, T-SQL

Databases: Oracle 11g, MS SQL, PostgreSQL

Productivity Tool: SSMS 19, Toad, SQL developer, pgAdmin

Coding Language: Python

Data Warehousing Tool: Snowflake

Operating System: Windows

IDE: Visual studio & Code

ETL Tool: SQL Server Integration Services (SSIS)

Source Control: GitHub, Azure Devops

Methodology: Agile/Scrum

EDUCATION

B.E. in Computer Science and Engineering (**CSE**)

BADGE

PROFESSIONAL SUMMARY

Data Engineer with 2 years of experience in building and maintaining data solutions. Skilled in SQL development and optimization, with hands-on experience in Oracle databases, including writing queries, stored procedures, functions, and triggers. Strong understanding of relational database concepts and data modeling. Familiar with ETL processes and data pipeline development. Worked extensively in ETL/ELT processes to load data from source to destination using SQL Server integration services.

EXPERIENCE

Database Developer | Optisol Business Solution, Madurai
Aug 2023 – Present

Work Stream 2: Data Migration (May 2024 – Present)

- Designed and implemented table-level data migration by mapping legacy SQL Server tables with Oracle databases, identifying unmatched records, and migrating non-existing values into the destination SQL Server database using SSIS.
- Performed basic **Snowflake** tasks during migration, including creating tables, defining schemas, and loading data using COPY INTO from external stages.
- Built intermediate-level SSIS packages, along with stored procedures, triggers, and views based on client requirements.
- Developed Snowflake SQL scripts for data transformation and validation and implemented file-based data loading from **Azure Blob Storage into Snowflake**.
- Created and managed **Snowflake virtual warehouses** for efficient query execution and monitored resource usage during migration processes.
- Collaborated with the team using Azure DevOps and Rally for project management, and utilized SQL Developer, TOAD, SSMS, and Visual Studio for development and deliverables.
- Interacted directly with clients to gather requirements and clarify business needs beyond user stories.
- Developed and used automation scripts for handling DML operations (Insert, Update, Delete) to streamline data processes.
- Performed data duplication, fuzzy lookups, and addressed additional client findings to ensure data quality and accuracy.

Additional Contribution:

Source-to-Target Data Migration | Python, Streamlit, Pandas, Snowflake

- Created a proof-of-value project to demonstrate moving data from a source database to a destination database, extending the concept to **Snowflake as the target environment**.
- Built an interactive Streamlit app to display both databases, highlight differences, and show before-and-after migration results.
- Used Python and Pandas to identify unmatched or missing records and migrate them to the destination table, **leveraging Snowflake Connector for Python for data loading and validation**.
- Added basic data validation, error handling, and logging to ensure accuracy during migration.
- Practiced ETL concepts (Extract, Transform, Load) in a lightweight setup using SQLite and **replicated similar workflows for Snowflake using COPY INTO and staging techniques**.
- Learned how to automate repetitive tasks in data handling using Python scripts integrated with **Snowflake SQL commands**.
- Improved understanding of database structures, data consistency, and transformation rules in both traditional and cloud-based systems.
- Demonstrated real-time migration tracking with visual feedback, making the process easier to understand.
- Designed the project so it can be extended to **SQL Server, Oracle, or Snowflake for enterprise-level migrations**.
- Gained confidence in combining database skills with Python, dashboards, and **Snowflake cloud data warehousing**, strengthening overall data engineering knowledge.

Work Stream 1: Database Design & Optimization (Jan 2024 – Apr 2024)

- Analyzed existing database structures, including tables, attributes, and relationships, to ensure data consistency and scalability.
- Optimized master modules by validating primary key and foreign key constraints and establishing robust relationships between master and transaction tables.
- Normalized legacy tables with 100+ columns, improving maintainability and reducing redundancy.
- Applied basic performance tuning techniques to reduce the execution cost of SSIS packages.
- Delivered ER diagrams using DBeaver to support database design discussions.