



GEETANJALI DHOKE

*business analyst*

# Optimizing Data Insights for Global Retail Client (Portfolio Case Study)

Company: Mastek

**Project Title:** Optimizing Data Insights for Global Retail Client

**Company:** Mastek

**Role:** Data Analyst

**Duration:** Apr 2022 – Dec 2024

**Tools:** SQL, AWS (S3, Glue, Lambda, Athena, Redshift, CloudWatch), QuickSight, Confluence, JIRA, BRD/FRD

**Prepared By:** Geetanjali Dhoke

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### **Project Overview:**

At Mastek, I was part of a cross-functional team delivering cloud-native data solutions for a UK-based retail client. My primary role involved gathering requirements, designing analytics solutions, and enabling decision-making through real-time dashboards.

### **Problem Statement:**

The client lacked a centralized reporting mechanism across departments. Business users relied on manual Excel reports compiled from various sources, leading to delays, inconsistencies, and limited visibility into operational KPIs.

### **Goals & KPIs:**

- ✓ Automate data pipelines across multiple systems
- ✓ Deliver self-service dashboards with 95%+ data accuracy
- ✓ Reduce manual report generation time by 80%
- ✓ Enable daily data refresh with monitoring alerts

## Approach & Methodology:

### Requirements & Collaboration:

- ✓ Conducted stakeholder workshops to gather metrics definitions
- ✓ Created BRDs and FRDs using Confluence and shared documentation

### Data Analysis & Pipeline Design:

- ✓ Analyzed existing raw datasets using SQL on Athena and Redshift
- ✓ Developed data pipelines using AWS Glue Jobs and Lambda
- ✓ Monitored system health using CloudWatch

### Dashboard Development:

- ✓ Built QuickSight dashboards tailored to departments (sales, ops)
- ✓ Implemented access control based on IAM roles

### Agile Process:

- ✓ Used JIRA for sprint tracking, daily standups, and demo reviews

## Challenges & Solutions:

| Challenge                                       | Solution  |
|---|---|
| Inconsistent data formats from multiple vendors | Applied ETL transformation logic in Glue scripts                            |
| Late feedback from non-technical stakeholders   | Created mock dashboards early to accelerate sign-off                        |
| Scaling during Black Friday events              | Optimized Redshift queries and used CloudWatch alerts for proactive scaling |

## **Results & Business Impact:**

- ✓ Report generation reduced from 6 hours to 30 minutes
- ✓ Business teams could view daily KPIs on-demand
- ✓ Reduced data quality issues by 90% via robust validations
- ✓ Enhanced collaboration with UK-based product and analytics teams

## **Reflection & Leanings:**

- ✓ Gained hands-on experience designing scalable cloud-based data pipelines
- ✓ Strengthened stakeholder management and requirements documentation skills
- ✓ Learned to balance speed with accuracy while working in Agile sprints

## **Stakeholder Feedback:**

*“Geetanjali’s clarity in communication and her proactive approach saved us weeks in development. Her dashboards became our go-to tool for daily decision-making.”*

– Product Manager, Mastek (UK Client)