Mayank Dangwal

PROJECT Portfolio

2024 - 2025

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BANK DATA QUALITY MONITORING AND ALERTING SYSTEM

(January, 2021 - June, 2021| Sr. Project Manager/Sr.Architect | Glen Allen, VA)

PROJECT BACKGROUND

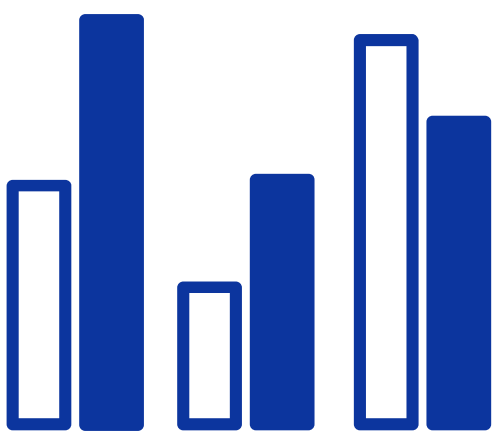
As data storage and usage regulations become increasingly stringent, the data industry is under pressure to elevate its standards. Robust data governance practices require advanced tools capable of identifying and addressing potential issues to safeguard customer data effectively. With this imperative in mind, the data organization sought tools offering comprehensive assessment and timely reporting of data quality issues.

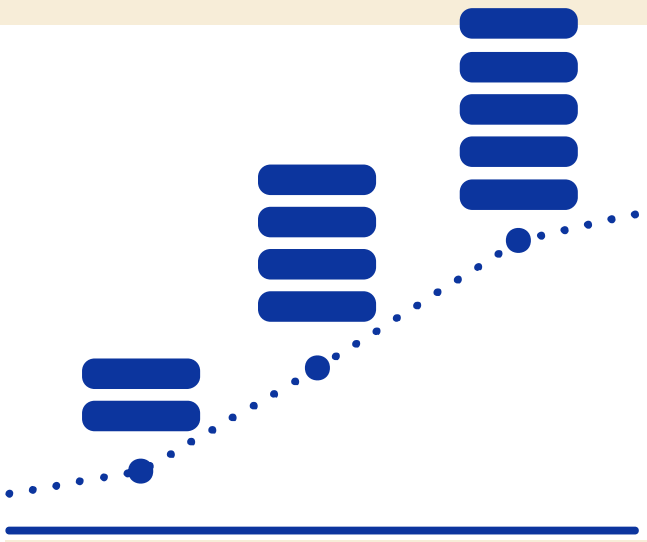
PURPOSE

Create a software system to monitor quality of data using defined assessments as metadata, alerting & reporing capability on regular intervals.
The system creates Alerts when data elements in the monitoring space fail any of the screening metrices.
These alerts are used by data governance & other stakeholders to fine tune the rules and processes for data creation, storage and usage.

RESPONSIBILITIES

- Provide technical leadership and project ownership.
- Lead cross-functional teams through Agile planning, execution and project delivery.
- Stakeholder collaboration and project performance management.
- Provided clear task prioritization and support, ensuring team members had necessary resources for success
- Created insights for senior leadership, and collaborated with partners like product manager's & scrum master to align expectations with roadmaps





SUMMARY

3 tiered architecture comprising a metadata management layer, data rules engine and a presentation layer was created. Initial version was tuned and tested with close to 200 rules setup for medium critical tablesin Snowflake data lake. Alerts were closely monitored by the data stewards.

PROJET LEARNING

Team work in a cross-functional collaborative environment - project team initially underestimated the complexity of the rules engine, resulting in delays. This problem was solved by partnering with another team and sharing work .This collaboration provided valuable learning opportunities to both the team and stakeholders.

PROJECT ENVIRONMENT

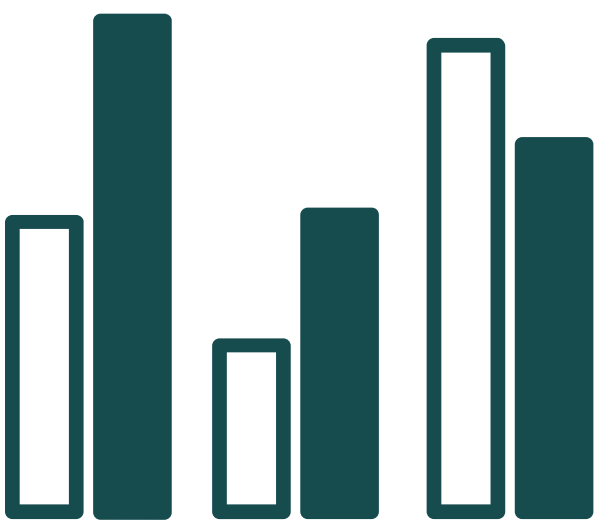
- Execution Methodology - Agile Product Oriented Development
- Geo distributed Team
- Key Stakeholders - Data Governanace, Bank Data program, Data Engineering Director
- Technology - AWS RDS ,S3 , Lambda services , SQS/SNS ,Snowflake and Ab Initio suite, Tableau, service now and slack.

BANK DATA PROTECTION & REMEDIATION

(July, 2021 - June, 2022| Sr. Project Manager/Sr.Architect | Glen Allen, VA)

PURPOSE

Develop adaptable software to detect and safeguard sensitive customer data in client's cloud infrastructure, ensuring robust security and compliance measures. Also, remidiate existing data security issues and establish mechanism to monitor future problems in this area.

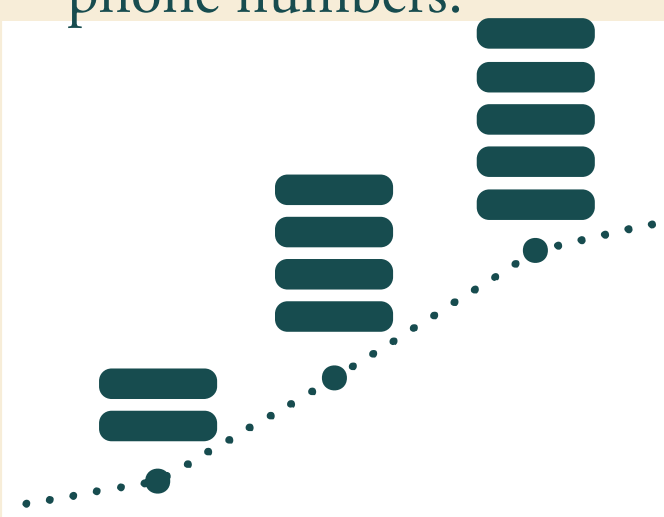


SUMMARY

Project involved building tech to scan the data sources at multiple touchpoints in the data lakehouse and enterprise file gateway to identify the loose ends.Exposed PII data was catalogued using an app connected to the DG portal and regular cadence with stakeholders was established to solve false positives.

PROJECT BACKGROUND

- Prompted by federal audits, a financial firm launched a project to enhance customer data security. Challenges arose in securely acquiring and storing data from diverse sources, with transit vulnerabilities initially overlooked.
- Leveraging modern tech , the project aimed to catalog, assess, and remedy data privacy issues, protecting vital information like SSNs, driver's licenses, and phone numbers.



PROJET LEARNINGS

Data Governanace team should be actively consulted and involved in such programs:- In the sensitive data identification phase a large numer of false positives were identified and it made difficult for the technical team to decide on the rule.

RESPONSIBILITIES

- Provide technical leadership and collaborate with stakeholders to align project vision.
- Guide Agile planning, manage team performance, and monitor progress.
- Conduct regular stakeholder reviews to ensure that the project remained aligned with their needs and expectations
- Program growth, team development & project performance.

PROJECT ENVIRONMENT

- Execution Methodology - Agile Product Oriented Development
- Geo distributed Team's
- Key Stakeholders - Data Governanace, Bank Data program, Consulting partner.
- Technology - AWS EC2, RDS ,S3 , Lambda services , SQS/SNS ,Snowflake and Ab Initio suite, Tableau, service now and slack.

DATA ENRICHMENT
PLATFORM STABILIZATION
& SITE RELAIBILITY ENGINEERING

(Jan 2019 - Dec, 2020| Sr. Project Manager/Sr.Architect | Glen Allen, VA)

PROJECT BACKGROUND

The customer recently migrated their data processing environment, which included various workflows and data assets. This migration to the public cloud resulted in an unstable system, causing frequent business delays and SLA breaches, particularly stressful for the SRE teams. With a production failure rate exceeding 8%, resolving issues in war room settings became routine, impacting team morale and turnover.

PURPOSE

This project was started with sole aim of stabilizing the data processing platform within 6 quarters. The ecosytem consisted of over 10000 batch jobs ,540 database tables and a large number of Ab initio graphs and scripts.The goal of this project was to bring down the production failure rate to under 2% from 8% and reduce the code footprint by 30%. Another goal for this project was to set a SRE team by transitioning the ITIL tiered support teams to SRE mindset.

RESPONSIBILITIES

- Provide technical leadership, program & project ownership.
- Lead cross-functional teams through Agile planning, execution and project delivery.
- Stakeholder collaboration and project performance management.
- Provided clear task prioritization and support, ensuring team members had necessary resources for success
- Manage resources, program operations and project profitabilty.
- Lead war room triages and S2 calls. Represent team on executive project reviews.

SUMMARY

AN INVENTORY OF ALL THE PAST FAILURES WAS CREATED AND ANALYSED TO UNDERSTAND THE PAIN POINTS. ALONSIDE, TEAM WAS RESTRUCTURED AND ENABLED BY MULTIPLE TRAININGS AND SESSIONS TO ADOPT A SRE MINDSET AND ADOPT A "PROBLEM SOLUTION" FIRST THINKING OVER THE EXISITING "ISSUE FIX" APPROACH. CULTURE OF AUTOMATION AND INNOVATION WAS PROMOTED . AS A RESULT , PRODUCTION FAILURE RATE WAS BROUGHT DOWN 2% AND MANY JOBSJOB PRINT WAS REDUCED BY 25%.

PROJET LEARNING

Top three category of problms identified were, Data Format issues from the sources, Adhoc fixes by production support teams and platform infrastructure related problems. No matter what, unless there is a complete sync between the producers of data and the consumers of data, processes will fail. Thus partnering with data producers should be part of the strategy to stabilize.

PROJECT ENVIRONMENT

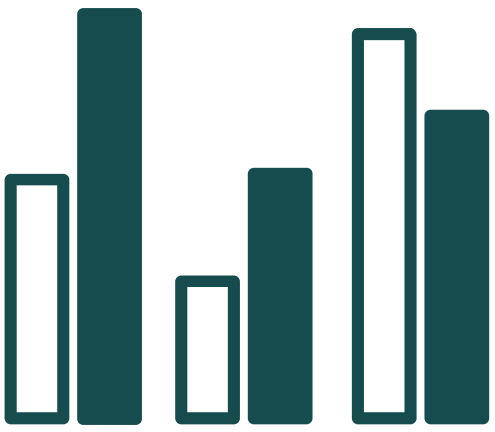
- Execution Methodology - SRE team follwoing KANBAN.
- Technology - AWS RDS ,S3 , Lambda services , SQS/SNS ,Snowflake and Ab Initio suite, proprietory scheduling system, service now and slack.
- project teams were split globally as per time zones to provide 24*7 support
- Close partnership with platform infra support .

PROVIDER DATA MANAGEMENT

(November, 2016 - December, 2018 | Sr. Project Manager/Sr.Architect | Dayton, OH)

PROJECT BACKGROUND

The client is a non-profit Government Programs managed Care Company, providing member-centric health care coverage across five states and a variety of markets. This Program saw delivery & managementof 3 projects - development of a product for healthcare provider data management , provider and customer MDM development & implementation and a project to help onboard a brand new market including a high profile OCM implementation.

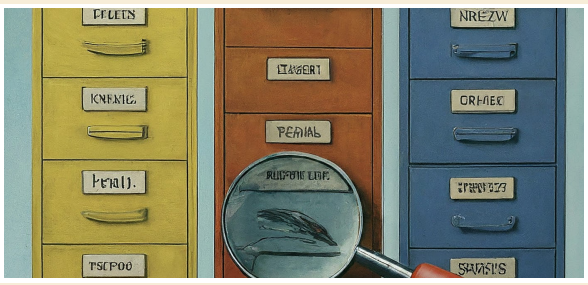


PURPOSE

The organization's ability to serve its providers and clients hinged on effective data management. However, departmental use of individual data management approaches resulted in siloed data, hindering overall visibility. This prompted the need for a comprehensive solution to improve provider data visibility across the organization and this could be best acheived by constructing a single source of truth with master data.

RESPONSIBILITIES

- Provide technical leadership, program & project ownership.
- Lead & deliver MDM capability for provider data.
- Create alignment with leadership on scheduling, resource management and cadence & style of progress reports.
- Ensure team members had necessary resources for success.
- Manage resources, program operations and project profitabilty.
- Develop and manage customer relationship, ensure project progress as palnned.
- Stakeholder engagement and management reporting.
- Escalation management.



PROJECT ENVIRONMENT

- Execution Methodology - SRE team follwoing Scrum.
- Technology - Windows platform , Informatica ETL & MDM suite, SQL Server, JIRA, Java
- Time & material SOW and another a Fixed Cost contract.
- Partnership with Business consulting, Informatica Corp and OCM COE.

SUMMARY

THE FINAL OUTCOME WAS A UNIFIED VIEW OF PROVIDER, CLAIMS AND CREDENTIALING DATA FROM DIFFERENT SOURCES AVAILABLE IN ONE PLACE. THE DATA WAS MASTERED AND TRANSACTIONS VIEWS WERE READILY ACCESSIBLE.THE UI ALLOWED THE USERS TO CREATE , MANAGE AND UPDATE/CORRECT PROVIDER DATA AND GENERATE VALUBLE INSIGHTS. THIS PRODUCT WAS HIGLT APPRETIATED & CEO OF THE COMPANY SPECIFICALLY CALLED IT OUT IN THE ANNUAL ALL HANDS MEETING.

PROJET LEARNING

- End User participation & validation should be secured eary in the planning phase of the project.
- Usage of proprietory hardware and software should be evaluated thorougly upfront.
- Audiance for a POC demonstration should chosen very deligently, else , viewers may asume that they have a final product available.

HIGH AVAILABLITY
FOR DATA DEVELOPMENT
ENVIRONMENT AND EDS HOME LOANS

(January, 2015- October, 2016 | technical Project Manager)

PROJECT BACKGROUND

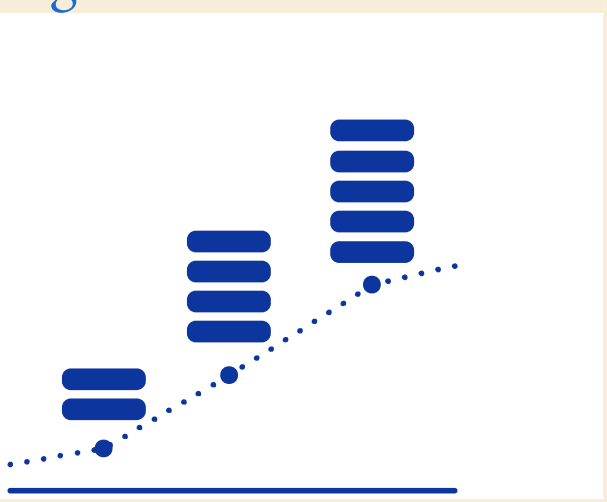
The client's data development environment, powered by Ab Initio with data stored in Teradata over multiple data centers. A major storage hardware failure impacted over 25% of daily jobs, leading to a catastropic failure & significant production downtime, resulting in multimillion-dollar losses. To enhance resilience, the decision was made to migrate to Hadoop for active data replication and high availability, a pioneering move for Ab Initio implementations. The transition required extensive research and large-scale remediation of affected code objects. The DDEHA project team was formed to ensure smooth operation on ABI 3.2 on Hadoop, addressing potential issues and optimizing the platform's performance

SUMMARY

THIS PROJECT WAS FIRST EVER ATTEMPT TO USE HADOOP FOR CRITICAL AND TRANSACTIONAL BANKING DATA PROCESSING PLATFORM. ITS SUCCESSFULL MIGRATION PROVIDED HIGH AVAILABILITY AND DESIRED LEVELS OF RESILIENCY AND PROTECTION AGAINST PRODUCTION ENVIRONMENT BEING TOTALLY UNAVAILABLE FOR BUSINESS.

PURPOSE

During this stint , 2 projects were delivered ,the first project tackled a major data outage by migrating their data capabilities developed on Ab Initio platform to Hadoop for high availability requiring, reenigneering of existing code base to work seamless on the new platform.
The second project built a mortgage data warehouse (MDW) for loan analysis, regulatory reporting, and data access across business units.
Both projects significantly improved the company's data infrastructure and management.



PROJET LEARNING

- Unix versions have their nuances and can cause significant roadblocks which tough to debug and fix.
- Migrating accross unix versions caused delays and this should be factored into effort estimation.
- Ab initio Co-operating system works seemlessly on top of HDFS due to inbuilt parallelism in the tool.

RESPONSIBILITIES

- As a technical manager
  - Assessed the project complexities and hired/onboarded suitable talent
  - Collaborated with stakeholders to align expectations with business plan.
  - Created and shared cadence for management reporting
  - Aligned resources for the project
  - Formulated Quality plan , BCP and worl plan for team to operate
- As a solution architect
  - Verified Ab Initio on Hadoop & fixed Unix compatibility
  - Design & build utilities for migration and validation.
  - AWS Glacier data archive replacing tape backups
  - Formulate plan for rollouts & post-migration support

PROJECT ENVIRONMENT

- Execution : Scrumban (hybrid of scrum and kanban)
- Geo distributed teams with haevy offshore component.
- Cross-functional team composed of infrastructure engineers, application engineers and Caludera experts.
- Unix, Teradata, Ab Initio, Caludera Hadoop, ControlM.
- Team Size - 24

ENTERPRISE DATA WAREHOUSE SUPPORT

(March, 2012- December, 2014 | Technical Project Manager)

PROJECT BACKGROUND

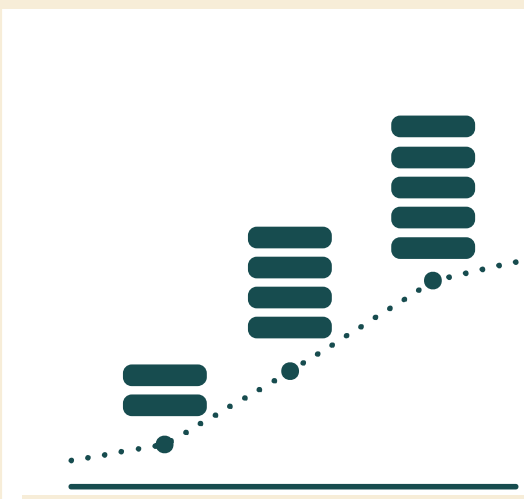
Client is a Financial services giant and a key player in the credit card market. They have implemented a data warehouse to support analytics and operation data needs for purposes like regulatory compliance and data reporting.This warehouse supports over 100 applications which run close to 10000 batch jobs daily . There are about 200 incidents each day and a large number of data research and adhoc request tickets to be closed. This project was an attemp to streamline these efforts and provide a 24*7 support to the line of business. The teams were organized in ITIL 3 tiered(L1,L2,L3) format working accross geographies to provide continuous support. The services provided were SLA bound forvarious category of incidents.

SUMMARY

THIS PROJECT WAS A HIGH PROFILE PROJECT SINCE IT STARTED OUR PARTERERSHIP WITH THE CLIENT. CLIENT WAS NOT HAPPY WITH THE OUTGOING VENDOR AND WAS SKEPTICAL ABOUT OUR SUCCESS . 2 PRONGED STRATEGY WITH FOCUS ON CLOSE CLIENT CONNECTION AND EFFICIENT INCIDENT RESOLUTION TO WIN CONFIDENCE WAS FOLLOWED.PROCESS WERE FINE TUNED & IMPROVED AFTER CONSULATAIONS WITH EXPERTS.

PURPOSE

- The purpose of this project was to to provide SRE (site reliability engineering) services to ensure that enterprise data warehouse was loaded with data within SLA's veryday and it was available for the business users during and after the business hours.
- Provide timely resolution of production job failures.
- Conduct research and present findings to the ticket owners.
- Conduct data analysis to answer bunsiness queries and identify shortcomings in data to help create new features for business.
- Perform change management



PROJET LEARNING

- Unix versions have their nuances and can cause significant roadblocks which are tough to debug and fix.Migrating accross unix versions caused delays and this should be factored into effort estimation.
- Ab initio Co-operating system works seemlessly on top of HDFS due to inbuilt parallelism in the ab initio tool.

RESPONSIBILITIES

- Project management tasks , technical leadership and process consulataions.
- Ownership of all timely response and resolution of all type of problems reportes.
- Oversee creation and implementation of team schedule rosters .
- Day to day team management , hiring new talent , planning team tranings.
- Co-ordination with other stakeholders , both internal and external.
- Own the BCP and drive all audits for the project including Quality control , business continuity and security.
- Conduct team and project performanace assessment and work with leadership on improvements.

PROJECT ENVIRONMENT

- Execution : Scrumban (hybrid of scrum and kanban)
- Geo distributed teams with heavy offshore component.
- Cross-functional team composed of infrastructure engineers, application engineers and Caludera experts.
- Unix, Teradata, Ab Initio, Caludera Hadoop, ControlM.
- Team Size - 24

OTHER PROJECTS

Jan 2011 – Feb 2012

Project: Rescued ProfitMax NexGen!

Challenge

Deliver a critical application (ProfitMax NexGen) for customer profitability analysis after two failed attempts. Tight deadlines demanded a parallel execution strategy across onshore and offshore teams in India.

Tech : DataStage, Oracle 11g, PLSQL, MS Visio, MS Office

My Role

- Data architect, leading data analysis, mapping, and standard setting.
- Collaborated with business and IT to define data flows and build interfaces.
- Facilitated design reviews, designed error handling for ETL jobs.
- Collaborated with the program management for resources , project execution and team onboarding.

Oct 2009 – Dec 2010

AML Feeds: Saving UKRetail Bank from Money Laundering Headaches!

Challenge

This project tackled critical compliance for UKRetail Bank by building an Anti-Money Laundering (AML) data feed system. Facing massive data volumes and diverse sources, we extracted and transformed customer and retail bank data. Here's how I contributed:

My Role

- Designed and built generic Ab Initio graphs for data transformation, leveraging powerful PDL and metaprogramming.
- Developed a robust utility for auditing, error handling, and Change Data Capture (CDC) to ensure accurate, historical data loads into Fortent for profiling and transaction alerting.
- Beyond the Code: Championed best practices and performance tuning for Ab Initio code.
- Weekly status reports, issue & risk tracking, and clear communication ensured project transparency.
- Facilitated knowledge transfer by transitioning the application overview and code walkthrough to the client.

OTHER PROJECTS

Apr 2009 – Sep 2009

PLIP Sunset: A Phoenix Rises from Legacy Ashes!

Challenge

This project involved a critical modernization effort for a leading US insurance provider. We successfully retired their legacy application (PLIP) and transformed a massive volume of legacy MIS reports.

My Role:

- Ab Initio Architect: Designed and developed efficient Ab Initio graphs, reusable components, and parameter sets to handle the data extraction and transformation needs.
- Bridging the Gap: Collaborated closely with subject matter experts (SMEs) to translate business requirements into clear Ab Initio designs for the new MI extracts.
- Quality Champion: Actively participated in unit testing, peer reviews, and client interaction to ensure code quality and design effectiveness.
- Planning and Execution: Contributed to project planning and resource allocation, ensuring a smooth transition from legacy to modern Ab Initio-based data processing.

Aug 2008 – Mar 2009

Western Europe Data Warehouse: Unifying a Financial Powerhouse!

Challenge

This project aimed to create a centralized data hub for a major bank's Western European operations (WEDW). My role was instrumental in building this critical data warehouse using Ab Initio on Unix

My Role:

- Data ETL Expert: I actively participated in data analysis, coding, and testing to extract, transform, and load credit card and bank data into the data warehouse.
- Design Champion: I crafted detailed design documents and led walkthroughs with architects and leads to ensure alignment and approval.
- Reusable Solutions: I developed generic Ab Initio graphs for common functionalities, promoting efficiency and streamlining development.
- Collaborative Powerhouse: I actively participated in team discussions and workshops, fostering collaboration and innovative solutions.
- Bridge Between Teams: I coordinated seamlessly with the onshore team, providing regular progress updates and ensuring smooth collaboration.
- Implementation Rockstar: I spearheaded implementation plans, change orders, and new code rollouts, ensuring a successful transition to production.
- Quality Guardian: I addressed post-implementation bug fixes and facilitated a seamless handover to the production support team..

OTHER PROJECTS

Dec 2006 – Jun2007

Tesco.com Promotions: Bringing the In-Store Experience Online

Challenge

This project aimed to bridge the gap between Tesco's brick-and-mortar experience and their online store (Tesco.com). I played a key role in developing a system to deliver targeted promotions (like limited-time offers) to online shoppers, making their experience more competitive and engaging.

My Role:

- Requirements Expert: Gathered crucial information from subject matter experts (SMEs) to understand the promotional needs.
- Design Champion: Crafted comprehensive design documents and secured sign-off from technical leads.
- Reusable Solutions: Developed generic Ab Initio graphs for common functionalities, promoting efficient development across use cases.
- Collaborative Powerhouse: Actively participated in team discussions and effectively coordinated with the onshore team, ensuring seamless progress.
- Implementation Rockstar: Prepared detailed implementation plans and change orders, while supporting new code rollouts for a successful launch.

May 2006 – Nov 2006

Product Reconciliation: Cleaning Up the Data for a Leading UK Retailer

Challenge

This project tackled a critical data challenge for a major UK retailer. My role involved reconciling product information between their Operational Data Store (ODS) and legacy systems to ensure consistent data across the organization. This project ultimately paved the way for decommissioning the legacy system.

My Role:

- Business Requirement Champion: Collaborated with subject matter experts (SMEs) to understand the reconciliation needs.
- Design Architect: Created detailed design documents for the Ab Initio ETL process and obtained SME sign-off.
- ETL developer: Developed Ab Initio graphs to extract data from the mainframe and populate the product area of the ODS.
- Performance Optimizer: Identified performance bottlenecks due to high data volume and implemented optimizations using Ab Initio SORT instead of Syncsort.
- Collaborative Powerhouse: Actively participated in team discussions and effectively coordinated with the onshore team for smooth progress.
- Prepared implementation plans and change orders, supported code rollouts .