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Optum

Unified Data Submission

Kavya Rao
E&I Data Engineering

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Intro – Kavya Rao



Fun Facts	
Likes & Interests:	Travelling, Podcasts, Netflix, Food
Favorite Vacation:	Travelling back to India
Irrational Fear:	Cockroaches
Guilty Pleasure:	Watching Vlogs on YouTube, Instagram Reels
Family:	Krishna Prasad(Father), Nanda(Mother), Kausthubha Rao(Brother)
Any other fun fact(s):	Cleaning is my stress buster

Basics	
Office Location (based):	Dublin
Hometown:	Manipal
Business Function:	Data Engineering, Analytics and Reporting
Number of years at UHG:	Joined 5 th July 2021
Previous Employers:	Deloitte Ireland
College and Degree:	MSc Business Analytics, UCD Michael Smurfit Graduate Business School



Revitalizing Legacy Systems with Gen AI-Powered Modernization

Objective:

We have successfully developed a workflow that leverages Gen AI to transform legacy code into modern languages. For this pilot, we converted SAS scripts(~ **30,000 lines**) to PySpark.

Benefits achieved:

Accelerated Code Migration: At least **50%** reduction in code migration effort

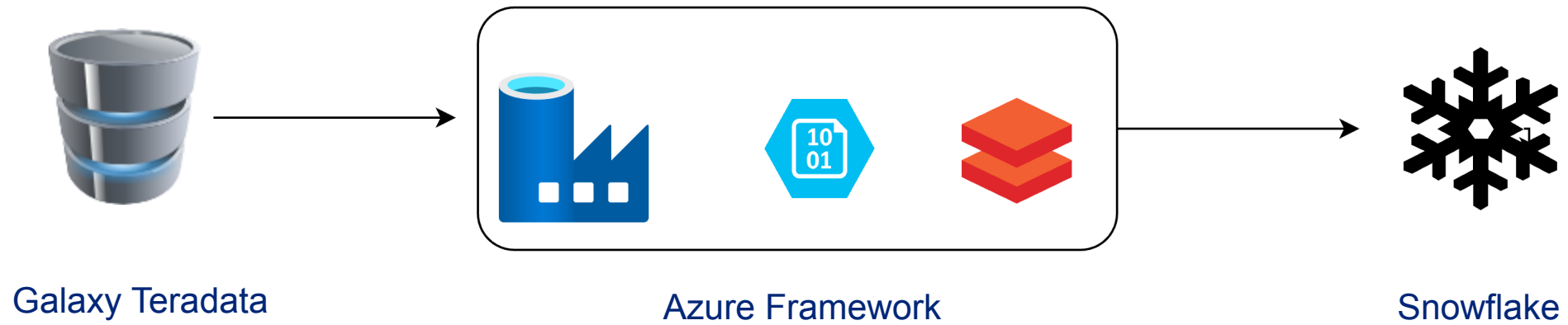
Reduced Total Cost of Ownership (TCO): Reduced long-term costs associated with maintaining legacy systems.

- Availability of expertise

- Shorter development cycles (Quicker value add)

- Simpler to maintain

High Level Architecture



UDS

Objective:

- Reduce UDS run time from 5 days to less than a day.
- UDS source code: 30k lines of SAS

What we did :

- Built a workflow (SAS code -> pseudo code -> Python -> validate)
- Used ChatGPT 3.5 and later 4o via UAIS AI playground
 - Manual instructions and copy-paste

Outcomes:

- Code conversion and testing completed in just under 4 months
- UDS runs in less than 2 hours. Lower TCO, easy to test changes

What's next:

- Automating the workflow with API access to ChatGPT; adding test suite creation
- Reducing code conversion and test time to less than 4 weeks.

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