Data and Applied Sciences Anomaly detection with lake House

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INTRODUCTION

Developed an early warning system by detecting anomalies in ship engines for a pioneer low speed gas and diesel engines company.

- 220+ signals transmitted from each ship engine
- Engine Data from 120+ Ships
- Data volumes of up to 12 GB expected each day



BACKGROUND

- Lack of early warning system in the form of Anomaly & Spike detection in Ship engines
- Platform for KPI Monitoring and Alert mechanisms for Ship Engines
- To validate the feasibility of Data Storage and Processing on the cloud for deriving key business insights
- To efficiently store and process large volumes of structured and unstructured data coming from their ship engines

SOLUTION OFFERED

- Cloud (AWS) Based Big Data Analytics to derive insights out of client Data, containing data transmitted out of Customer's various Ship engines
- Solution included modules developed for Data Ingestion(30 GB from ship engines) to the Cloud

Platform enabler for

- Identification of data patterns and corelations
- New Use Cases
- AI/ML analytics

BENEFITS/OUTCOMES

- Enabler for Anomaly detection and early warning in ship engines
- Continuous engine health monitoring for possible deviations
- Built predictive model which helps in identifying the warranty cases linked to engine failures



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