40560-G: Microsoft Cloud Workshop: Predictive Maintenance for Remote Field Devices

In this workshop, you will learn how to evaluate Microsoft's catalog of PaaS and SaaS-based IoT products to determine the optimal combination of tools to fulfill Fabrikam's needs. You will design and implement a solution that simplifies IoT device management and reporting, providing Fabrikam with a faster path to realizing their IoT strategy without requiring a lot of custom development. Next, you will learn how to deploy a trained predictive maintenance Machine Learning model and design a stream processing pipeline that makes predictions with the model in near real-time. At the end of this pipeline is an alert that is sent to the oil pump maintenance team when a pump failure is imminent.

Objectives

- Design an IoT-based predictive maintenance solution in Azure.

Prerequisites

Workshop content presumes 300-level of architectural expertise of infrastructure and solutions design. We suggest students take this prerequisite prior to attending this workshop.

- Microsoft Azure Essentials course

Intended Audience

This workshop is intended for Cloud Architects and IT professionals who have architectural expertise of infrastructure and solutions design in cloud technologies and want to learn more about Azure and Azure services as described in the "Summary" and "Skills gained" areas. Those attending this workshop should also be experienced in other non-Microsoft cloud technologies, meet the course prerequisites, and want to cross-train on Azure.

Topics

- Whiteboard Design Session - Predictive Maintenance for remote field devices

- Hands-on Lab - Predictive Maintenance for remote field devices