Microsoft Cloud Workshop: Intelligent Vending Machines

Length
- 1 day

Prerequisites
- Workshop content presumes 300-level of architectural expertise of infrastructure and solutions design.
- Microsoft Azure Essentials course, available at https://www.microsoft.com/en-US/azureessentials

Audience
- Cloud Architects and IT Professionals who have architectural expertise of infrastructure and solutions design in cloud technologies

What You'll Learn
- How to build cloud-based machine learning applications and real-time analytics with SQL Database in-memory and columnar indexing
- Implementing distributed machine learning with R Server for HDInsight & MS R Server Operationalization
- Facial image processing
- Wrangling Data in Power BI Desktop

This instructor-led workshop details how to implement an IoT solution for intelligent vending machines leveraging facial feature recognition and Azure Machine Learning to drive on-demand pricing, enable real-time analytics, and cloud to device messaging flows.

Workshop Outline

Module 1: Whiteboard Design – Intelligent Vending Machines
- Review the customer case study
- Call to action: Design a proof of concept solution
- Call to action: Present the solution

Module 2: Hackathon – Intelligent Vending Machines
- Before the hackathon
- Environment setup
- IoT Hub provisioning
- Completing the Smart Meter Simulator
- Hot path data processing with Stream Analytics
- Cold path data processing with HDInsight Spark
- Reporting device outages with IoT Hub Operations Monitoring
- Cleanup