

Microsoft Azure Data Explorer with Advanced KQL

Getting Started with Azure Data Explorer: Overview and Architecture

- What Is Azure Data Explorer and Why Should I Use It?
- ADX Key Characteristics and Use Cases
- ADX Architecture, Components, and Scalability
- ADX Security

Understanding and Creating Azure Data Explorer Infrastructure

- Understanding and Creating Azure Data Explorer Infrastructure
- ADX Cost: Selecting the SKU for Your Use Case
- Creating a Cluster
- Managing Cluster Scaling
- Creating a Database
- Managing Database Permissions
- The Azure Data Explorer Web UI

Querying Data in Azure Data Explorer

- Querying Data in Azure Data Explorer
- Getting to Know the Kusto Query Language (KQL)
- Querying Azure Data Explorer, the Help Cluster, and the Sample Database2m
- Getting Started with Kusto Control Commands
- The Basics of KQL - Most Commonly Used Operators
- More KQL Operators
- Advanced KQL
- Querying External Tables
- Querying Data in Azure Monitor and Using the Flow Kusto Connector
- Exporting Data

Visualizing Data in Azure Data Explorer

- Visualizing Data in Azure Data Explorer
- Visualizing the Results of a Query with the Render Operator
- Data Visualization Using the Azure Data Explorer Dashboard
- Visualizing Data Using Power BI
- Visualizing Data in Grafana
- Visualizing Data in Redash
- Visualizing Data in Kibana with the K2Bridge Open-source Connector
- Visualizing Data in Tableau with the ODBC Connector
- Visualizing Data in Sisense with the JDBC Connector

Monitoring in Azure Data Explorer

- Monitoring in Azure Data Explorer
- Using Metrics to Monitor Cluster Health
- Adding Diagnostic Logs to Monitor Ingestion
- Use Resource Health to Monitor Cluster Health
- Troubleshooting

Exploring User Analytics

- Introduction
- Sliding Window Counts
- Active User Counts
- Activity Counts Metrics
- Activity Metrics
- Activity Engagement

Executing Geographic Analysis

- Nearby Events: Circle
- Nearby Events: Line
- Geofencing
- Clustering
- Geospatial Joins

Performing Diagnostic and Root Cause Analysis

- Introduction to Diagnostic and Root Cause Analysis
- Using Autocluster
- Using Basket
- Using Diffpatterns
- Performing Verification

Time Series Analysis 1 – Creation and Core Functions

- Make Series
- Series FIR
- Series Fit Line and Fit 2 Lines
- Seasonality Detection
- Series Subtract
- Time Series at Scale

Time Series Analysis 2 – Anomaly Detection and Forecasting

- Decomposition
- Anomaly Detection
- Forecasting
- Scalability

Extensibility Using Inline Python / R

- Introduction to Calling Python and R from KQL
- The Mechanics of Calling Python
- Time Series Analysis Using Python's Numpy
- Using Python's K Means Clustering from KQL
- Calling R from KQL