Event Hub and Stream Analytics

CODICE	DT0098
DURATA	2 gg
PREZZO	890,00 €
EXAM	

DESCRIZIONE

The presentation to participants of main services used for the IoT infrastructure developments takes place through a practical workshop.

Attendees will experience three services: IotHub, IotCentral and Stream Analytics, deepening the logic of data collection and writing in a cloud context.

Moreover, general-purpose data storage and visualisation services will be presented along with those IoT specific solutions, to overview the dataflow from data collection to data visualisation.

TARGET

Data Engineer, Data Scientist, Data Analyst, IoT Data Scientist

PREREQUISTI

Nessuno

CONTENUTI

Modulo 1:

- Internet of Things: Introduction to IoT, Type of solutions, Introduction to Ingestion services
- Azure IoT Hub: Introduction to Azure IoT Hub, Device or Gateway,
- Communication Protocols, Device Registration, Device Communication to Cloud, Cloud to Device Communication, Message Routing
- Azure Stream Analytics: Introduction to Azure Stream Analytics, Processing
- Real-Time of messages, Definition of a Stream Analytics Job (Input, Output, Query and Function), The SAQL language, Aggregation in SAQL (the “time window” functions)
- Azure IoT Central: Introduction to Azure IoT Central, Device, Templates,
- Data Visualization, Device Communication to Cloud, Cloud to Device
- Communication

- IoT Solution Store Data: Store IoT data: Data Stores involved (Azure Storage, Data Lake Store, Azure SQL)
- IoT Solution Data Visualization: Architecture of an IoT solution:
- Presentation Layer, Azure components used for the frontend of an IoT solution
- Power BI Real-Time Streams: Analyse the Real-Time IoT flows within Power BI
- Power BI Historical Data: Analyse the IoT historical data within Power BI
- Predictive Maintenance: Introduction to Predictive Maintenance

Modulo 2

- Hans On Laboratory