



MICROSOFT TRAINING

IoT And The Smart City Microsoft Cloud Workshop

Explore IoT and Smart City solutions using Microsoft Cloud. Build innovative, connected urban environments.

DURATION

2 hours

LEVEL

Intermediate

FORMAT

Instructor-Led

- Globally Recognized Certification

- Expert-Led Hands-On Training

- Flexible Scheduling

Computer Pride | 1st Floor, ICEA Building, Kenyatta Avenue, Nairobi | www.computer-pride.co.ke

COURSE OVERVIEW

This intensive 2-hour Microsoft Cloud Workshop on "IoT And The Smart City" provides an engaging, hands-on journey into leveraging Microsoft Azure to design and implement intelligent urban solutions. Participants will explore the fundamental principles of the Internet of Things (IoT) within the context of smart city initiatives, learning how connected devices, data analytics, and cloud infrastructure converge to create more efficient, sustainable, and livable urban environments. This workshop is ideal for IT professionals, developers, and solution architects looking to expand their expertise in cloud-enabled IoT.

You will gain practical experience with core Azure IoT services, understanding how to ingest data from diverse IoT devices, process it in real-time, and derive actionable insights. This workshop is designed to equip you with the essential skills to conceptualize, build, and deploy scalable IoT solutions that address critical urban challenges, from intelligent traffic management and public safety to environmental monitoring and utility optimization. Enhancing your proficiency in Microsoft Azure's robust IoT ecosystem, this workshop is a crucial stepping stone for contributing to the future of urban development and innovation.

Duration	2 hours
Level	Intermediate
Vendor	Microsoft

COURSE CURRICULUM

01 Module 1: Introduction to Smart Cities and Azure IoT Foundation

- Defining the Smart City: Concepts and Use Cases
- Overview of IoT Architecture for Urban Environments
- Introduction to Microsoft Azure for IoT
- Key Azure IoT Services: IoT Hub, Device Provisioning Service (DPS)

02 Module 2: Connecting and Managing Smart City Devices

- Provisioning Devices with Azure IoT Hub
- Device-to-Cloud Telemetry Data Transmission
- Understanding Device Twins and Direct Methods
- Securing IoT Device Communication

03 Module 3: Real-Time Data Processing and Insights

- Ingesting and Routing IoT Data with Azure IoT Hub
- Stream Analytics for Real-Time Data Processing
- Introduction to Azure Data Explorer for IoT Data
- Visualizing Smart City Data with Power BI (Introduction)

04 Module 4: Building a Smart City Scenario on Azure

- Designing a simulated Smart Traffic Management System
- Implementing an Environmental Monitoring Solution
- Best Practices for Scalable IoT Deployments
- Exploring Next Steps for Advanced Smart City Solutions

CAREER PATHWAYS

Graduates of this program are prepared for the following roles:

- > **IoT Solutions Architect (Azure Specialist)**
- > **Smart City Infrastructure Engineer**
- > **Azure IoT Developer Specialist**

FREQUENTLY ASKED QUESTIONS

Q: What specific Microsoft Azure services will I gain practical experience with during this "IoT And The Smart City" workshop?

This workshop is designed for hands-on learning with essential Azure IoT services. You will get practical exposure to Azure IoT Hub for device connectivity and messaging, Azure Stream Analytics for real-time data processing, and gain an understanding of how services like Azure Data Explorer and Power BI integrate for data storage and visualization within a smart city context.

Q: How will this workshop enhance my ability to design and implement real-world smart city solutions using Microsoft technologies?

By focusing on practical application and a hands-on scenario, this workshop will equip you with a foundational understanding of architecting IoT solutions for urban environments. You'll learn to securely connect devices, efficiently process sensor data, and conceptualize how to translate urban challenges into actionable, cloud-based IoT solutions, preparing you to contribute to intelligent infrastructure projects.

Q: What technical prerequisites are recommended to get the most out of this specific "IoT And The Smart City Microsoft Cloud Workshop"?

To maximize your learning experience, it's recommended to have a basic understanding of cloud computing concepts and familiarity with the Azure portal. Prior exposure to basic programming concepts (e.g., C#, Python, JavaScript) and a conceptual understanding of IoT fundamentals would also be beneficial, though not strictly required for the workshop's core activities.

ABOUT COMPUTER PRIDE



East Africa's Premier IT Training Center

With over 15 years of excellence, Computer Pride delivers globally recognized certification programs from leading technology vendors. Located on Kenyatta Avenue in Nairobi's CBD, our state-of-the-art facilities and expert instructors have empowered thousands of professionals across East Africa.

15+

Years of Excellence

10,000+

Professionals Trained

50+

Vendor Certifications

READY TO ENROL?

Take the next step in your technology career.

Location

1st Flr, ICEA Building
Kenyatta Ave, Nairobi

Email

info@computer-pride.co.ke

Phone

+254 705 900 900

www.computer-pride.co.ke