

Certified Internet of Things (IoT)

Référence : ITP-110

Niveau : Début

Durée : 3 jours (21h.)

Tarif: Nous Contacter

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Objectifs

In this course, you will learn how to apply Internet of Things technologies to solve real-world problems. You will:

- Plan an IoT implementation.
- Construct and program an IoT device.
- Communicate with an IoT device using wired and wireless connections.
- Process sensor input and control an actuator on an IoT device.
- Manage security, privacy, and safety risks on IoT projects.
- Manage an IoT prototyping and development project throughout the development lifecycle.

Public

This course is designed for IT professionals with baseline skills in computer hardware, software support, and development who want to learn how to design, develop, implement, operate, and manage Internet of Things devices and related systems. The student is interested in learning more about embedded systems, microcontroller programming, IoT security, and the development life cycle for IoT projects.

While students will gain hands-on experience assembling a prototype IoT device and using software development tools, these activities are closely guided, so previous experience in electronics assembly and programming are not required. This course prepares students for taking the CertNexus® Certified Internet of Things (IoT) Practitioner (Exam ITP-110).

Pré-requis

To ensure your success in this course, you should be an experienced computer user who is comfortable setting up and configuring computers and electronic devices. You can obtain this level of skills and knowledge by taking either of the following Official CompTIA® Content course offerings available from Logical Operations:

-CompTIA® IT Fundamentals® (Exam FC0-U51)

-CompTIA® IT Fundamentals® (Exam FC0-U61)

Contenu du cours

Lesson 1: Planning an IoT Implementation

Topic A: Select a General Architecture for an IoT Project

Topic B: Identify Benefits and Challenges of IoT

Lesson 2: Constructing and Programming an IoT Device

Topic A: Select and Configure a Processing Unit

Topic B: Select a Microcontroller Power Source

Topic C: Use a Software Development Kit to Program an IoT Device

Lesson 3: Communicating with an IoT Device

Topic A: Communicate Using Wired Connections

Topic B: Communicate Using Wireless Connections

Topic C: Communicate Using Internet Protocols

Lesson 4: Processing IoT Data

Topic A: Process IoT Device Input and Output

Topic B: Process Data in the Cloud

Topic C: Provide M2M Communication

Lesson 5: Managing Risks on IoT Projects

Topic A: Identify IoT Security and Privacy Risks

Topic B: Manage IoT Security and Privacy Risks

Topic C: Manage IoT Safety Risks

Lesson 6: Undertaking an IoT Project

Topic A: Identify Real World Applications for IoT

Topic B: Follow the IoT Development Lifecycle