Developing IoT Solutions with Azure IoT

Modality: On Demand

Duration: 12 Hours

This course makes you ready for the Exam of 70-535 leading to the Certification of 70-535. No Exam Voucher includes in this course, but you have the option to request the purchase of a Voucher for the Official Exam separately.

About this course:

Prepared to make your initial step in IoT gadget development? Bring your programming aptitudes, and begin with this functional examination of what IoT means and the way to utilize MS Azure advances in IoT solutions. Observe how IoT is being executed by businesses around the globe, and configure and apply your own start to finish IoT solution using the Azure IoT Hub.

With assistance from the specialists, get familiar with the basics of key features of the platform. Begin with the basics of the device, similar to enlistment and tracking, and afterward execute device-to-cloud and cloud-to-device messaging. Investigate Azure analytics, including Stream Analytics of Azure, to perform continuous incoming information monitoring and to produce alarms. At that point, execute essential Power BI highlights, store sensor information in the cloud using DocumentDB, and include remote administration and update capacities to your device. In this course, discover many starter packs and work through a practical task with the Raspberry Pi kit. Using a combination of video and written-based instructional materials, alongside an extensive arrangement of hands-on lab exercises, get a very close look at genuine world IoT abilities that you can begin using immediately. Also, this course readies the understudies for the certification exam of Microsoft 70-535: Architecting MS Azure Solutions.

The normal pay for Software Developer with MS Azure aptitudes is $76,767 every year.

Course Objective:

- IoT and the technologies of Azure IoT Hub
- Data Visualization and Storage with Power BI and DocumentDB
- Information Analysis and Azure Stream Analytics
- Remote Device Management

Audience:

This course is planned for

Computer programmers who are involved in automation with IoT.

Prerequisites:

- Fundamental programming abilities are required.
- Experience programming in Java, C, JavaScript, or C# will be valuable.
- Experience programming an Arduino, Raspberry Pi, or another single-board PC will be valuable.

Suggested prerequisites courses:

- Programming in C# - MOC On-Demand -- MS-20483
- Basic coding of JavaScript
- Azure Fundamentals
- Programming for Absolute Beginners
- Java Programming
- From 0 to 1: the Internet of Things and Raspberry Pi

Course Outline:

Module 1 | IoT and the Azure IoT Hub

- Resource Content: IoT and Azure IoT Hub
- Labs Overview and Configuration
- Tutorial Lab: Getting Started with Azure
- Tutorial Lab: Creating an IoT Hub
- Tutorial Lab: Setting Up Your IoT Device
- Tutorial Lab: Sending and Receiving Messages
- Self-Assessment Lab: Messaging

Module 2 | Data Analysis

- Resource Content: Data Analysis
- Labs Overview and Configuration
- Tutorial Lab: Creating a Stream Analytics Job
- Tutorial Lab: Using Azure Functions
- Self-Assessment Lab: Processing Additional Telemetry

Module 3 | Data Storage and Visualization

- Resource Content: Data Storage and Visualization
- Labs Overview and Configuration
- Tutorial Lab: Using Long Term Storage
- Tutorial Lab: Getting Started with Power BI
- Self-Assessment Lab: Creating Additional Power BI Reports

Module 4 | Remote Management of Devices

- Resource Content: Remote Management of Devices
- Labs Overview and Configuration
- Tutorial Lab: Implementing a Direct Method
- Tutorial Lab: Simulating a Firmware Update

- Tutorial Lab: Implementing a Firmware Update (Optional)
- Self-Assessment Lab: Implementing a Direct Method

Final Evaluation

- Final Assessment?