

Getting Started with the Internet of Things (IoT)

Modality: On Demand

Duration: 12 Hours

About this course:

This course is designed as a part of the Microsoft Professional Program Certificate in Internet of Things(IoT).

This course serves as an introduction to the Internet of Things and aims to give an overview of the fundamental principles, terminologies and patterns of IoT solutions.

For a better understanding and easier learning, this course has been broken down into modules. Each module is a succession of the previous module. All modules must be attempted together in order to gain a comprehensive understanding of the matter.

The first part or module defines IoT solutions and introduces students to its applications, specifically, the industry verticals which employ IoT to complete their business needs.

The second module covers the aspect of the architecture of an IoT solution. It includes the architecture of the solution on the device as well as the component on the cloud.

The third module takes things forward by instructing participants on the evaluation and implementation of IoT in their businesses.

The last and fourth module completes the course by providing detailed examples of where and how IoT solutions are being put into practice in real time in multiple industries around the globe. The aim of this course is to equip participants with the skill set needed to recognize and seize IoT business opportunities across various industries.

Course Objective:

Upon completion of this course, the participant should have an advanced skill set and a sound working knowledge of the following principals while also be able to;

- Gain a comprehensive understanding of the IoT and learn the difference between a commercial IoT device and a consumer IoT device
- Define the uses of IoT with respect to different businesses and industries for example manufacturing, smart city building, energy, healthcare, retail and transportation
- Gain an understanding of the IoT architecture and its components.
- Understand the security risks and how those risks should be managed while implementing an IoT solution
- Explain the communication, data and process pathways which are used in an IoT solution.
- Define the multiple approaches and options available to businesses and industries while planning to implement IoT solutions.

- Have an extensive knowledge of the devices available in the market , their pros , cons and key characteristics
- Explain the software and services needed in an IoT solution and the security considerations with respect to the implementation and how they should be addressed
- Assess and align a problem statement using a real world IoT architecture and implementation
- Describe the multiple approaches available to implement IoT solutions in a use case scenario

Audience:

This particular course is aimed at the following audience;

- IoT engineers
- IoT developers

Pre-Requisites:

The following prerequisites are absolutely necessary to be eligible to take this course;

- A fundamental understanding of the Cloud Computing and its basic concepts
- A general knowledge of IoT and its workings

Course Outline:

IoT in Industry

- Examining the Business of IoT
- Exploring IoT Business Scenarios

Introduction IoT Architectures

- Examining the Architecture of an IoT Solution
- Exploring IoT Security Considerations

Approaches an IoT Implementation

- Exploring the Components of an IoT Solution
- Exploring the Approaches IoT Business Solutions

Real-World IoT Scenarios

- Exploring IoT Solutions

Final Evaluation

- Final Assessments