

# AMAZON WEB SERVICES IOT with MQTT

## COURSE CONTENT

### MQTT Introduction

- Introduction to MQTT & Communication protocol for IoT
- Understanding MQTT
- Difference between HTTP & MQTT
- Understanding MQTT Broker
- Understanding Publish & Subscribe Methods
- Installing MQTTfx
- Installing Mosquitto (local server for MQTT Broker )

### Introduction to AWS IoT

- Install the AWS CLI
- Create a Device in the Thing Registry
- Secure Communication Between a Device and AWS IoT
- Verify MQTT Subscribe and Publish
- Configure and Test Rules
- Use the Device Registry and Device Shadows
- Device Registry

### Security and Identity

- Identity in AWS IoT
- Authorization

### Message Broker

- Protocols
- Topics

### Rules

- Granting AWS IoT the Required Access
- Creating an AWS IoT Rule
- Viewing Your Rules

- Troubleshooting a Rule
- Deleting a Rule
- AWS IoT Rule Actions
- Device Shadows
- Device Shadows Data Flow
- Device Shadows Documents
- Using Device Shadows
- RESTful API
- MQTT Pub/Sub Messages
- Document Syntax
- Error Messages

## **AWS IoT SDKs**

- Device SDK
- AWS IoT Device SDK for C
- AWS IoT Device SDK for Node.js

## **IFTTT**

- Introduction
- Discover IFTTT
- Create Applets

## **THINGS TAKING USING NODE-RED**

- Getting familiar
- Installation
- Connecting with Internet Devices
- Being Social with Node-Red
- Connecting to Cloud