Arduino IoT Cloud for Developers : Implement Best Practices to Design and Deploy Simple-To-complex Projects at Reduced Costs /

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Monografía

Understand essential IoT concepts to build smart IoT projects at reduced costs using the Arduino IoT Cloud platform, Arduino, ESP32 series boards, Amazon Alexa Voice Assistant, and MQT-135 with this practical guide Key Features Learn about the Arduino IoT Cloud from scratch with hands-on projects Gain a solid understanding of IoT application development from basics to advanced features Explore the Arduino IoT Cloud's capabilities for commercial IoT solutions in depth Purchase of the print or Kindle book includes a free PDF eBook Book Description The Arduino IoT Cloud offers a variety of features for building modern IoT solutions while reducing time and costs for prototyping and deployment. This book is a step-by-step guide, helping you master the powerful Arduino IoT Cloud ecosystem. This book begins by introducing you to the IoT landscape including its architecture, communication technologies, and protocols and then to the capabilities of the Arduino IoT Cloud platform and the Cloud Editor. With practical projects, such as monitoring air quality, building a portable asset tracker, and creating a remote alarm system using the LoRaWAN specification, you'll learn how to implement real-world IoT applications. Next, you'll explore communication between IoT devices and cloud platforms as well as the implementation of the Arduino IoT Cloud SDK and JavaScript for advanced customization. You'll also find out how to program IoT nodes, analyze the surrounding environment data, and visualize it on dashboards. Additionally, you'll get to grips with advanced features such as task scheduling, synchronization, remote over-the-air updates for IoT nodes, and scripting with CCLI, through hands-on examples. By the end of this book, you'll have learned how to work with the Arduino IoT Cloud platform and related hardware devices and will be able to develop industry-specific and cost-effective IoT solutions, such as smart homes and smart agriculture. What you will learn Gain a solid understanding of IoT fundamentals and concepts Build creative IoT projects using Arduino MKR boards, Pulse sensors, and more Master various communication technologies, including LoRaWAN and 3G/4G Harness data exchange between IoT devices and cloud platforms using Zapier or IFTTT Explore advanced features like scheduling, over-the-air updates, and scripting Understand easy-to-sync properties across multiple devices with no-code Develop voice-assisted home automation and heart rate tracking applications Who this book is for This book is for aspiring IoT developers and seasoned professionals eager to harness the potential of Arduino and cloud integration as well

as technology enthusiasts, students, and hobbyists interested in experimenting with IoT technologies. Prior knowledge of basic electronics and embedded systems, cloud computing, Arduino, and programming languages like C and JavaScript is needed

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Título: Arduino IoT Cloud for Developers Implement Best Practices to Design and Deploy Simple-To-complex Projects at Reduced Costs Muhammad Afzal

Edición: 1st ed

Editorial: Birmingham, England Packt Publishing [2023] 2023

Descripción física: 1 online resource (402 pages)

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ISBN: 1-83763-457-2

Materia: Internet of things Arduino (Programmable controller) Machine-to-machine communications Informática en la nube

Enlace a formato físico adicional: Print version Afzal, Muhammad. Arduino IoT Cloud for Developers Birmingham : Packt Publishing, Limited,c2023

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