Start-Up Creation: The Smart Eco-Efficient Built Environment

Chapter 18: App programming and its use in smart buildings

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Abstract

App start-up companies require little overhead and investment to create apps that are profitable. Successful apps require people, both managers and developers, a deep understanding of software engineering. This chapter will focus on the many aspects of software engineering for creating apps for smart building management systems. Readers will get an overview of the many different issues to consider when developing apps and what some of the problems are to avoid. We will discuss the types of apps that can be considered for creation and discuss how they are used. This chapter serves as a primer to understanding apps and app development.

Keywords: software, apps, human-computer, interaction, HCI, software development, software engineering, smart building

Chapter Outline

18.1 Introduction

     Motivating app start-ups

     From building automation to smart buildings

     Remaining chapter organization

18.2 Types of apps

     General building system anatomy

     Native Apps

     Cloud Apps

     Web Apps

     Dashboard Apps

     Ambient Devices

     Agent Apps

     Other issues to consider

18.3 Methodologies for creating apps

     Creating apps using evolutionary delivery

     Frontend and backend app development

     How to collect and store data

     Ubiquitous sensor platforms and IoT

     App development environments

18.4 Conclusions

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