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

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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
References


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