

Learn BlackBerry 10 App Development

A Cascades-Driven Approach



Anwar Ludin

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To Bibijan.

At 85 she has no interest in smartphones but constantly encouraged me to finish this book.

To this world's naysayers.

They give us the drive to achieve what they will never attempt.



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About the Author



Anwar Ludin is a freelance software engineer located in Geneva, Switzerland. He studied Electrical Engineering at the Swiss Federal Institute of Technology in Lausanne. After having fried a chip too many, he decided to switch to software engineering and never looked back. Anwar has spent the past decade in IT in the financial services sector where he tried to figure out the meaning of life amongst men in gray. His current interests, and the road ahead, include sensors-aware mobile app design, Cascades programming, data visualization, data science and high performance computing. He considers himself as a hardcore developer and is so happy he no longer needs to do the pencil pushing wearing a gray suit and a navy blue tie.



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Introduction

BlackBerry 10 is the latest incarnation of the mobile operating system developed by BlackBerry for its new line of smartphones. As you can imagine, mobile platforms have experienced exponential growth in the recent years and BlackBerry has invested tremendous efforts in order to build a rock solid operating system fuelling its future generations of devices. BlackBerry 10 is also amazingly powerful and includes tons of enhancements compared to its predecessors. First of all, the heart of BlackBerry 10 ticks with the QNX hard real-time microkernel, which is used in safety critical systems such as nuclear power plants, medical devices, and also increasingly in automotive systems. BlackBerry 10 adds to rock-solid QNX a wealth of new APIs for accessing a mobile device's sensors (such as its camera, accelerometer and gyroscope) and also includes the Cascades UI framework for building beautiful mobile applications. In essence, the new range of APIs propel BlackBerry 10 to the next level of mobile computing and give you the tools for developing truly innovative apps.

The purpose of this book is to introduce you to the amazingly cool features of BlackBerry 10 and give you a solid foundation in Cascades application development. As I mentioned it in the previous paragraph, Cascades is first and foremost the new UI framework for building native BlackBerry 10 applications. Cascades is also based on QML, which is a powerful declarative language for designing UIs. Because QML is tightly integrated with JavaScript and C++, you have the choice between using JavaScript for the UI layer of your app and, if necessary, rely on C++ for the performance critical aspects of the app. In essence, Cascades gives you an efficient way of creating native applications with beautiful UIs optimized for the BlackBerry 10 line of mobile devices. From a consumer perspective Cascades provides a very rich and visually enticing user experience based on beautiful controls and animations.

After having read this book, you will be able to develop BlackBerry 10 native apps based on the Cascades framework and leverage the BlackBerry 10 platform services in your own apps. The book will also show you how to integrate your apps with the core BlackBerry 10 productivity apps in order to create the tools required by the professional user in order to get his job done. The only prerequisite to get the most out of this book is some prior knowledge of OOP and perhaps a little experience with other mobile platforms such as iOS or Android (you will be introduced to all the key concepts required for building native apps using Cascades, including C++, in a progressive manner).

BlackBerry 10 is also a land of opportunity. As I write this introduction, new markets are opening up and new devices, more powerful with wider screens than my year-old Z10 companion, are rolling out. Secure platforms designed for enterprise users and, increasingly, cloud services users are still BlackBerry's forte. As a developer you can tap into this largely unexploited world of opportunities by designing the next killer app. I hope this book will help you pave the way and that you will enjoy the same sense of fun and excitement I have using Cascades.

Should you want to share anything about the book with me, please feel free to reach me through my website (<http://www.aludin.com>). You will also find on the site some advanced material about BlackBerry 10 and Cascades programming that did not make the cut in the book's current release. Finally I have also kept an up-to-date errata list on the book's page. So if you feel at any point that the sample code ziggs when it should have zagged, make sure to check the list.

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