The first version of windows phone was windows phone 7. It was launched first back in November 8, 2010. At that time, the mobile application developers had to create Windows Phone apps using Microsoft Silverlight framework using Visual Studio 2010. Microsoft Silverlight is an application framework which is used to write rich internet applications on web browsers and Windows Phone. Windows Phone 7 used Windows CE based architecture.

With some new improvements, a new generation of Operating System Windows Phone 8 was released in October 29, 2012. This new OS brought more software improvements and better support for hardwire. For example – support for multicore processors, high resolution screens, high end hardwire supports etc. This time the developers were creating phone apps using Microsoft Silverlight and Visual Studio 2012. Windows Phone 8 used Windows NT kernel along with many components shared with Windows 8 OS, allowing application to be easily ported between two platform (Windows Phone 8 and Windows 8).

Windows Phone 8.1 update was announced on April 2, 2014 and they released a developer preview on April 10, 2014. New OS update includes many new features like Notification Center, IE 11, Action Center, Cortana – voice based personal assistance etc.

This time, the kernel is Windows NT, great supports for developing apps has been introduced. Previously in Windows Phone 8, the developers had to build apps on Silverlight framework which allowed using of some winRT features. But this time, the developers can develop apps both on Silverlight and winRT.

Since winRT supports Windows 8/ Windows 8.1, and now it supports Windows Phone 8.1 too, a new kind of application template called Universal Apps has been introduced this time. In universal apps, we can write the common business logic of our app in a single package and use that both in Windows Phone 8.1 and Windows 8.1 apps. Only the User Interface and platform specific APIs need to be declared explicitly on our respective app packages. We will dive into more details later on.

Now, if we want to develop app for windows phone 8.1, the first question we will be stuck with is, which framework should we choose, The Silverlight or The winRT( Windows Runtime). And the answer is, it depends on requirements and the circumstances.

After Windows Phone 8 came to market, there was a revolution in the developer community. Many custom controls were made at that time for windows phone, many third party api supports etc, which still supports Windows Phone 8.1 Silverlight. For example, we can talk about Geo Augmented Reality toolkit, Coding for Fun toolkit, Facebook SDK for .NET etc and many more. Unfortunately, by the time we are writing this book, many of these APIs/Toolkits/Libraries are still only available to Windows Phone 8.1 Silverlight but not for Windows Phone 8.1 winRT.

So, if we are going to develop an app, which requires 3rd party features and these features are only available to Silverlight Specific platforms, we better go for Windows Phone 8.1 Silverlight.

Now, there are many cases when we have to develop both mobile version and the desktop version of an app. If this is the case, the new universal app provides an excellent service to this purpose. Also, it is more likely that Windows Phone 8.1 winRT will be getting rich by time in terms of 3rd party toolkits and API supports. So, If you have plan to maintain your app for a long run as well as share your code across different platform, Windows Phone 8.1 winRT is an excellent choice.

Throughout this book, we will guide you through the Windows Phone 8.1 winRT app development.