

Mobile App Development with Delphi

Course outline

Setting up your environment for deploying apps to mobile devices.

Android and iOS.

The steps to do this will be shown, but we won't spend loads of time to get it working for every single setup for every single device.

Differences in various areas desktop vs. mobile.

We will look at the differences with strings, TStringList, memory management and so on.

Fine tuning the look and feel of an app, so it will fit all (well, most) devices crispy clear.

We'll see how to make the appearance of the app change slightly depending on the actual device its running on. For this we'll use the FireUI framework built in Delphi.

Swipes and other gestures

Users are accustomed to swiping on their device. We'll see what steps we need to take to let the user swipe his way through an app.

Local storage

We'll see how to build an app where you can store data locally on the device. Storing local data can be done using databases or files. We'll go through both.

User interface elements

We'll go through various elements that build up an app, like ListViews, ListBoxes, styled buttons, tab sheets and the likes.

Talking to peripherals

Mobile devices often interact with IoT (Internet of Things) or even other devices. Lets see how we can react to beacons, heart rate monitors or even other mobile devices and computers using Bluetooth and Wi-Fi.

Built in devices

Tablets and phones have built-in gadgets like the camera, a gps or other thing. We'll see how to talk to some of these.

Memory - battery consumption

Some things we have to pay attention to with mobile apps are memory and battery consumption. Lets see how we can monitor the consumed memory and how we can check the battery consumption of our app.

Styling the app

We'll go through how to style an app using some various styles for building apps.

After the day you should have enough knowledge to get started building apps for mobile devices, whether it's for iOS or Android.

Requirements/recommendations

For deploying iOS apps you will need to use a Mac Computer with Xcode and Xcode command line tools installed. (We will go through how to do this, but won't spend the time doing it. This can be time consuming.)

You also need to be registered as an Apple developer with Apple. This may take up to several weeks, so you will have to have done that beforehand. <https://developer.apple.com>

For deploying Android Apps you will need to have the specific ADB driver installed for the specific device. (We will go through how to do this, but will not spend the time doing it, this can be time consuming.)

Delphi professional with mobile add-on, or Enterprise version.

My recommended setup is (This works for me, if you get it working differently, that's fine):
A MacBook Pro with at least 8 GB RAM, running the newest OS from Apple with the newest Xcode installed.

On the Mac use VMWare Fusion newest version to run a Virtual Windows machine on which you have the newest version of Delphi running. Use a fairly new iOS device (iPhone, iTouch or iPad) that can run the newest version of iOS.

Use a fairly new Android device that can run the newest version of Android. I strongly recommend using Googles own device (I have a Nexus 5 phone and a Nexus 7 tablet), as there will be no skins or third party settings to disturb. Also installing the ADB driver is different from device to device, and the course will go through the Google ADB driver only.

Alfasoft will offer training computers to attendees. It is also possible to bring your own computer.