

Nation

Code

ios

{ CODENATION }™

Overview



Intro to iOS is Code Nation's flagship evening course



Intended audience

This is an introductory programme

Intro to iOS leans on the perceived magic of user interface development with a little Swift code to make it work.

Our audience for this course is primarily those who haven't done coding before but are interested in finding out whether it's for them in a way that's captivating and relatable.



Learning outcomes

We have a couple of expected outcomes

The overall mission of Intro to iOS is to:

- enable students to develop a simple app**
- utilise professional tools including Xcode**
- help students identify if a future career in coding is for them**



Business outcomes

Why we're doing a free iOS course

- **Simple open nights are generally limited to people already in the funnel and interested in Code Nation already**
- **A course like this will appeal far more widely to people whilst providing our potential students with an even better insight into what Code Nation and coding is like**
- **Provide a genuine service to the digital community in Manchester for goodwill**



What the course covers

Topics

This course runs across 2 evenings (however night 1 can run as a standalone course as well for flexibility and to appeal to as many people as possible)

Part one covers :

- 1) Introduction to Code Nation
- 2) What iPhone and iOS is from a technical perspective
- 3) Building an interactive user interface with Xcode Storyboards; using familiar controls such as Tab Bars, View Controllers as well as simple buttons and sliders

Part two covers:

- 1) Introduction to Table Views
- 2) Introduction to Swift
- 3) Displaying data in a Table View

Timings



Part 1

High-level learning plan

1) Introduction to Code Nation

- 1) The story of Code Nation (10 minutes)
- 2) How Code Nation works and how to study with us (10 minutes)

2) What iPhone and iOS is from a technical perspective

- 1) Use student's existing knowledge to make them feel comfortable – relate iPhone to familiar experiences when using smartphones (e.g. gyroscope, accelerometer, camera) and explain where that functionality comes from (15 minutes)
- 2) Explain concept of a Software Development Kit and that it isn't an accident that apps have a consistent look and feel – Apple provides it. Use this as a way to build confidence – explain that much of what we do is working with things that already exist, that they'll be surprised how much progress they can make. SDK discussion and examples – 15 minutes

3) Building an interactive user interface with Xcode Storyboards; using familiar controls such as Tab Bars, View Controllers as well as simple buttons and sliders

- 1) This provides an excellent opportunity to show students exactly what an SDK is in action. Introduce and demonstrate Storyboards, its drag-and-drop functionality for building familiar apps. Showcase buttons, how we can drag a button on and make it do something with no code at all. This should be very interactive – showcase a feature, make the students do it in a slightly more complex way (30 minutes)
- 2) Explain View Controllers and how they're at the heart of everything – super important things. This will be a little tougher for students, not a familiar concept. Once done, students to build an app with different kinds of View Controllers (45 min)



Part 2

High-level learning plan

1) Introduction to Table Views

- 1) Showcase Table Views and how they're used everywhere; Apple Music, Spotify and show Android equivalent (5 min)
- 2) Explain the usefulness of them and how they work including cells (15 mins)
- 3) Ask students (don't show them yet) to use their skills from yesterday to drag a table view onto their storyboard (10 mins)
- 4) Explain the purpose of a prototype cell (15 min)

2) Introduction to Swift

- 1) Introduce the simple structure of Swift by covering variables and really simple functions – refer to variables as boxes and functions as simply something we do. Use real life examples – always. Several tasks should be provided in this section – show a variable, students should make a variable and then make another, slightly different one – this is a very interactive part of the course – 60 mins

3) Bringing it all together

- 1) Students now well aware of Storyboards and have exposure to Swift. Reinforce that. This final part brings the two together – how we can use Swift to display some data in our table views – students to code along every step of the way (45 mins)