Contents

Preface About this book Notes for iOS developers TIMTOWTDI	8
Introduction: Swift for Complete Beginner How to install Xcode and create a playground Variables and constants Types of Data Operators String Interpolation Arrays Dictionaries Conditional statements Loops Switch case Functions Optionals Optional chaining Enumerations Structs Classes Properties Static properties and methods Access control Polymorphism and typecasting Closures Protocols Extensions Protocol extensions	rs 19

Wrap up

Project 1: Storm Viewer Storm Viewer: Setting up Splitting a window in two Adding custom controllers Designing our interface Introducing outlets Showing some table rows Loading our images Responding to table selection Finishing touches Storm Viewer: Wrap up	176
Project 2: Cows and Bulls Cows and Bulls: Setting up Designing our user interface Filling in the table view Setting up the game Marking guesses Cows and Bulls: Wrap up	226
Project 3: Social media Social Media: Setting up Subclassing NSSplitViewController Creating a toolbar Social Media: Wrap up	247
Project 4: Grid Browser Grid Browser: Setting up Starting with the toolbar Layout with stack views App Transport Security	260

Handling navigation Adding Touch Bar controls Grid Browser: Wrap up	
Project 5: Capital Cities Capital Cities: Setting up Creating a map view Dropping pins Keeping score Capital Cities: Wrap up	314
Project 6: Auto Layout Auto Layout: Setting up Visual Format Language Auto Layout anchors Stack views Grid views Auto Layout: Wrap up	340
Project 7: Photo Memories Photo Memories: Setting up Designing with collection views Selecting items Loading images from disk Importing files Re-arranging photos Detecting keypresses with keyUp() So now what? Making a video composition Photo Memories: Wrap up	357

Creating and destroying web views

What's selected?

Project 8: Odd One Out Odd One Out: Setting up Creating a grid of buttons Generating layouts Click to win Game over Final tweaks Dark mode Odd One Out: Wrap up	408
Project 9: GCD GCD: Setting up Performing selectors in the background Running arbitrary code on different threads Running delayed code Concurrent execution GCD: Wrap up	444
Project 10: WeatherBar WeatherBar: Setting up The art of nothingness Creating a settings screen Saving and loading settings Parsing JSON Updating the user interface Creating more menu items WeatherBar: Wrap up	457
Project 11: Bubble Trouble Bubble Trouble: Setting up Cleaning up the Xcode template Bubbles bubbles everywhere! Setting the universe in motion Adding some difficulty	497

Project 12: Animation Animation: Setting up Constructing a test environment Basic animator proxy use Animating layers Advanced layer animation Animation: Wrap up	523
Project 13: Screenable Screenable: Setting up Designing the user interface Populating the popup buttons Drawing images and gradients Rendering the caption Importing a screenshot Exporting the finished product NSDocument and NSCoding Screenable: Wrap up	538
Project 14: Shooting Gallery Shooting Gallery: Setting up Creating the game world Creating a custom node Click, click, bang! Adding some polish Shooting Gallery: Wrap up	589
Project 15: NSUndoManager NSUndoManager: Setting up Reversible changes	616

Gotta pop 'em all Bubble Trouble: Wrap up

Project 16: Bookworm Bookworm: Setting up Set up for success Manipulating arrays with NSArrayController Binding everything Creating an emoji formatter Presenting a credits screen Bookworm: Wrap up	628
Project 17: Match Three Match Three: Setting up A grid of balls Matching colors Making room for more Tracking score A puff of smoke Match Three: Wrap up	654
Project 18: Bindings Bindings: Setting up KVC and KVO The imperial march Property observers and KVO Dependent properties and formatters Bindings: Wrap up	688

Doubling up methods NSUndoManager: Wrap up