

# **Getting Started with ResearchKit**

By Edward Cessna, Dhanush Balachandran



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## **Key Features**

- Create a simple clinical research app using most aspects of ResearchKit
- Build a simple survey with various data types with the results printed on the screen.
- A step-by-step guide introducing Apple's ResearchKit and techniques to incorporate it into various apps.

## **Book Description**

ResearchKit is an open source software development framework from Apple that lets you easily create mobile applications for clinical research studies. ResearchKit provides you the ability to orchestrate the administration of tasks and recording of the results. ResearchKit provides tasks in order to perform informed consent, active tasks, and surveys.

Starting with the basics of the ResearchKit framework, this books walks you through the steps of creating iOS applications that could serve as the basis of a clinical research mobile app.

This book will introduce readers to ResearchKit and how to turn your iPhone into into a clinical research tool. The book will start off by installing and building the research framework in line with the researcher's needs; during this, the reader will learn to embed ResearchKit in the application and create a small task.

After this, the book will go a little deeper into creating modules for surveys, consents, and so on. The book will also cover the various aspects of privacy and security with regard to participant data, and how to build dashboards for visualizing medical data and results in line with the researcher's requirements: data backends, JSON serialization and deserialization, and so on.

Readers will be able to fully utilize ResearchKit for medical research, will be able to get more and more patients to participate in their surveys, and will gain insights from the surveys using the dashboards created.

## What you will learn

· Learn to create customized consent form

- Get introduced to two backend services: a simple backend server using Sinatra and Sage Bridge
- Build a custom task (a conditional survey example) and a navigable task
- Get an Overview of ResearchKit's open source repository and App Core
- Interaction with the hardware of the device including the gyro and the motion sensors
- · Learn the basics of this revolutionary technology
- Get introduced to the barebones app and learn to write your first code

#### About the Author

**Dhanush Balachandran** has a vast experience in creating mobile apps for healthcare industry that include several ResearchKit apps. He was the lead iOS engineer at Jiff, a healthcare start-up and later worked on ResearchKit-based apps for leading institutions. Currently, he is an iOS engineer at DJI. He is also the founder & CEO of mobile app startup, Sortly.

**Edward Cessna** is the software engineering director for Y Media Labs, a digital agency in Northern California that creates mobile applications. He has three decades of software engineering experience—ranging from embedded software providing cryptographic services to a multitude of iOS applications. He has been working with iOS since its first public release in July 2008. He has managed the development effort for a number of ResearchKit-based applications for leading research institutions.

## **Table of Contents**

- 1. Getting Started
- 2. ResearchKit Hello World
- 3. Building Surveys
- 4. ResearchKit Informed Consent
- 5. Active Tasks
- 6. Navigable and Custom Tasks
- 7. Backend Service
- 8. Where to Go from Here

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# **Editorial Review**

About the Author

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# **Users Review**

## From reader reviews:

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## **Otto Tejeda:**

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