What’s New in ResearchKit and CareKit

Session 232

Samantha Mravca, Health Team
ResearchKit
emojifit Diabetes
New features
New features

CareKit prototyping tool
New features

CareKit prototyping tool

Community collaboration
New Features

ResearchKit
Every time you start hearing a sound, tap the left or right button to indicate which ear you hear the sound in.
Every time you start hearing a sound, tap the left or right button to indicate which ear you hear the sound in.
Tone Audiometry

Every time you start hearing a sound, tap the left or right button to indicate which ear you hear the sound in.

Hearing test

Different audio frequencies
Every time you start hearing a sound, tap the left or right button to indicate which ear you hear the sound in.

Tone Audiometry

Hearing test
Different audio frequencies
Left and right channels
Tone Audiometry

Every time you start hearing a sound, tap the left or right button to indicate which ear you hear the sound in.

- Hearing test
- Different audio frequencies
- Left and right channels
- Progressive increase in volume
Every time you start hearing a sound, tap the left or right button to indicate which ear you hear the sound in.
Select the first letter of the name of the COLOR that is shown.

BLUE
Stroop

Selective attention

Select the first letter of the name of the COLOR that is shown.

BLUE

R G B Y
Stroop

Selective attention

Concordant
Stroop

Selective attention

Concordant and discordant
Stroop

Selective attention
Concordant and discordant
Returns
• Pass/Fail
Stroop

Selective attention

Concordant and discordant

Returns
• Pass/Fail
• Time to complete

Step 5 of 6
Select the first letter of the name of the COLOR that is shown.

BLUE

R  G  B  Y
Trail Making Test

Contributor: Faraz Hussain
Trail Making Test

Visual attention

Contributor: Faraz Hussain
Trail Making Test

Visual attention

Task switching

Contributor: Faraz Hussain
Trail Making Test

- Visual attention
- Task switching
- Connect series

Contributor: Faraz Hussain
Range of Motion

Left Shoulder Range of Motion

Place your device on your left shoulder with the screen facing out, as pictured.

Contributors: Darren Levy, Dr. Raj Karia, John Guydo
Range of Motion

Flexed and extended

Left Shoulder Range of Motion

When ready, tap the screen to begin and raise your left arm as far as you can. Tap again when you are done.

Contributors: Darren Levy, Dr. Raj Karia, John Guydo
Range of Motion

Flexed and extended

Touch anywhere active task

Contributors: Darren Levy, Dr. Raj Karia, John Guydo
Range of Motion

Flexed and extended
Touch anywhere active task
Accelerometer and gyroscope

Contributors: Darren Levy, Dr. Raj Karia, John Guydo
Range of Motion

Flexed and extended

Touch anywhere active task

Accelerometer and gyroscope

Shoulder

Contributors: Darren Levy, Dr. Raj Karia, John Guydo
Range of Motion

Flexed and extended

Touch anywhere active task

Accelerometer and gyroscope

Shoulder and knee

Contributors: Darren Levy, Dr. Raj Karia, John Guydo
Video Instruction Step
ResearchKit
New features

Tone Audiometry
Stroop
Trail Making
Range of Motion
Video Instruction Step
Digital Object Identifier
New Features

CareKit
Care Card
### ACTIVITIES

<table>
<thead>
<tr>
<th>Activity</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breathing Exercise</td>
<td>3 mins</td>
</tr>
<tr>
<td>Heat Therapy</td>
<td>8 mins</td>
</tr>
<tr>
<td>Neck Stretches</td>
<td>3 mins</td>
</tr>
</tbody>
</table>

### ASSESSMENTS

<table>
<thead>
<tr>
<th>Assessment</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleep</td>
<td>3 hrs</td>
</tr>
<tr>
<td>Stress</td>
<td>8 of 10</td>
</tr>
</tbody>
</table>

### OPTIONAL

<table>
<thead>
<tr>
<th>Activity</th>
<th>Dosage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ibuprofen</td>
<td>600 mg</td>
</tr>
</tbody>
</table>

### READ ONLY

<table>
<thead>
<tr>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avoid alcohol</td>
</tr>
</tbody>
</table>
June 8, 2017
Your care overview is 75% complete

ACTIVITIES

Breathing Exercise  Breathe App
// Set the view controller glyph type and color
let viewController = OCKCareContentsViewController(carePlanStore: store)

viewController.glyphType = .heart
viewController.glyphTintColor = .red
June 8, 2017

Your care overview is 75% complete

ACTIVITIES

Breathing Exercise  Breathe App
Care Contents

June 8, 2017
Your care overview is 75% complete

ACTIVITIES

- Breathing Exercise  Breathe App
  - 2/7 completed

- Heat Therapy  5 mins
  - 1/5 completed

- Neck Stretches  3 mins
  - 1/3 completed
June 8, 2017
Your care overview is 75% complete

ACTIVITIES

- Breathing Exercise: Breathe App
  - Complete: 2 days out of 5

- Heat Therapy: 5 mins
  - Complete: 1 day

- Neck Stretches: 3 mins
  - Complete: 1 day
Your care overview is 75% complete

ACTIVITIES

Breathing Exercise  Breathe App

Heat Therapy  5 mins

Neck Stretches  3 mins
Your care overview is 75% complete

ASSESSMENTS

Sleep
HealthKit 3 hrs

Stress
ResearchKit Survey 8 of 10
Care Contents

June 8, 2017
Your care overview is 75% complete

ASSESSMENTS

Sleep
HealthKit
3 hrs

Stress
ResearchKit Survey
8 of 10
June 8, 2017

Your care overview is 75% complete

ASSESSMENTS

Sleep
HealthKit
3 hrs

Stress
ResearchKit Survey
8 of 10
Care Contents

June 8, 2017
Your care overview is 75% complete

Stress
ResearchKit Survey

OPTIONAL

Ibuprofen 800 mg

READ ONLY

Avoid alcohol
June 8, 2017
Your care overview is 75% complete

Stress
ResearchKit Survey

OPTIONAL

- Ibuprofen 800 mg

READ ONLY

- Avoid alcohol
Your care overview is 75% complete

Stress
ResearchKit Survey

Ibuprofen 800 mg

Avoid alcohol
Your care overview is 75% complete

Stress
ResearchKit Survey

Ibuprofen 800 mg

Avoid alcohol
// Setting Activity as Optional
let ibuprofenIntervention = 
OCCKarePlanActivity.intervention(withIdentifier: "ibuprofen",
groupIdentifier: "Pain Medication",
title: "Ibuprofen",
text: "800 mg",
tintColor: .green,
instructions: "Take ibuprofen as needed for pain",
imageURL: nil,
schedule: schedule,
userInfo: nil,
optional: true)
// Setting Activity as Optional
let ibuprofenIntervention =
OCKCarePlanActivity.intervention(withIdentifier: "ibuprofen",
groupIdentifier: "Pain Medication",
title: "Ibuprofen",
text: "800 mg",
tintColor: .green,
instructions: "Take ibuprofen as needed for pain",
imageURL: nil,
schedule: schedule,
userInfo: nil,
optional: true)
let recommendations =
OCKCarePlanActivity.readOnly(withIdentifier: "readOnlyActivity",
groupIdentifier: "Recommendations",
title: "Avoid Alcohol",
text: "Until next appointment",
instructions: "Alcohol may increase chance of migraine",
imageURL: nil,
schedule: schedule,
userInfo: nil)
// Initializing a read only activity
let recommendations =
OCKCarePlanActivity.readOnly(withIdentifier: "readOnlyActivity",
groupIdentifier: "Recommendations",
title: "Avoid Alcohol",
text: "Until next appointment",
instructions: "Alcohol may increase chance of migraine",
imageURL: nil,
schedule: schedule,
userInfo: nil)
Your care overview is 75% complete

Stress
ResearchKit Survey

Ibuprofen 800 mg

Avoid alcohol
Care Contents

June 8, 2017
Your care overview is 75% complete

ACTIVITIES

Breathing Exercise Breathe App

Heat Therapy 5 mins

Neck Stretches 3 mins
Thresholds
// Create Numeric Threshold for Assessment
let stressThreshold = OCKCarePlanThreshold.numericThreshold(withValue: NSNumber(value: 7),
    type: .numericGreaterThan,
    upperValue: nil,
    title: "High stress level. Try to do some relaxation exercises to reduce stress."
)

// Create Adherence Threshold for Intervention
let breathingExercisesThreshold = OCKCarePlanThreshold.adherenceThreshold(withValue: NSNumber(value: 2),
    title: "Don't forget to complete your breathing exercises."
)
// Create Numeric Threshold for Assessment
let stressThreshold = OCKCarePlanThreshold.numericThreshold(withValue: NSNumber(value: 7),
    type: .numericGreaterThan,
    upperValue: nil,
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let breathingExercisesThreshold = OCKCarePlanThreshold.adherenceThreshold(withValue: NSNumber(value: 2),
    title: "Don't forget to complete your breathing exercises.")
### Insights

<table>
<thead>
<tr>
<th>Stress</th>
<th>Neck Stretches</th>
<th>Sleep</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 of 10</td>
<td>67%</td>
<td>3 hrs</td>
</tr>
</tbody>
</table>

#### Threshold Alerts

**Stress**
High stress level. Try to do some relaxation exercises to reduce stress.

---

**Care Plan Update**
Your care plan adherence was 83% last week.

#### Stress Levels

```
<table>
<thead>
<tr>
<th></th>
<th>Thu</th>
<th>Fri</th>
<th>Sat</th>
</tr>
</thead>
<tbody>
<tr>
<td>6/1</td>
<td>3</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>6/2</td>
<td></td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>6/3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
```

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### Insights

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#### Threshold Alerts

**Stress**

High stress level. Try to do some relaxation exercises to reduce stress.
Insights

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**Threshold Alerts**

**Stress**
High stress level. Try to do some relaxation exercises to reduce stress.

**Insights**

**One-Ring Update**
// Initializing Stress Assessment
let stressAssessment =
OCKCarePlanActivity.assessment(withId: "stress",
groupIdentifier: "Assessments",
title: "Stress",
text: "ResearchKit Survey",
tintColor: .purple,
resultResettable: false,
schedule: schedule,
userInfo: nil,
optional: false)
// Initializing Stress Assessment
let stressAssessment = 
OCKCarePlanActivity.assessment(withIdentifier: "stress",
groupIdentifier: "Assessments",
title: "Stress",
text: "ResearchKit Survey",
tintColor: .purple,
resultResettable: false,
schedule: schedule,
userInfo: nil,
optional: false)

// Creating a Widget for Stress Assessment
let stressWidget = OCKPatientWidget.defaultWidget(withActivityIdentifier: "stress",
tintColor: .red)
// Initializing Stress Assessment
let stressAssessment =
OCKCarePlanActivity.assessment(
    withIdentifier: "stress",
    groupIdentifier: "Assessments",
    title: "Stress",
    text: "ResearchKit Survey",
    tintColor: .purple,
    resultResettable: false,
    schedule: schedule,
    userInfo: nil,
    optional: false)

// Creating a Widget for Stress Assessment
let stressWidget = OCKPatientWidget.defaultWidget(
    withActivityIdentifier: "stress",
    tintColor: .red)
// Initializing Stress Assessment
let stressAssessment = 
OCKCarePlanActivity.assessment(withIdentifier: "stress",
groupIdentifier: "Assessments",
title: "Stress",
text: "ResearchKit Survey",
tintColor: .purple,
resultResettable: false,
schedule: schedule,
userInfo: nil,
optional: false)

// Creating a Widget for Stress Assessment
let stressWidget = OCKPatientWidget.defaultWidget(withActivityIdentifier: "stress",
tintColor: .red)
// Creating a Widget for Stress Assessment
let stressWidget = OCKPatientWidget.defaultWidget(withActivityIdentifier: "stress",
             tintColor: .red)
let calculatedPercentage = "67%"

let neckWidget = OCKPatientWidget.defaultWidget(withTitle: "Neck Stretches",
  text: calculatedPercentage,
  tintColor: nil)

let stressWidget = OCKPatientWidget.defaultWidget(withActivityIdentifier: "stress",
  tintColor: .red)
// Creating a Widget for Stress Assessment
let stressWidget = OCKPatientWidget.defaultWidget(withActivityIdentifier: "stress",
          tintColor: .red)

// Creating a Widget for Neck Stretches
let calculatedPercentage = "67%"
let neckWidget = OCKPatientWidget.defaultWidget(withTitle: "Neck Stretches",
          text: calculatedPercentage,
          tintColor: nil)

// Pass the Widgets When Creating the Insights View Controller
let viewController = OCKInsightsViewController(insightsItems: insights,
          patientWidgets: [stressWidget, neckWidget],
          thresholds: nil,
          store: store)
// Creating a Widget for Stress Assessment
let stressWidget = OCKPatientWidget.defaultWidget(withActivityIdentifier: "stress",
  tintColor: .red)

// Creating a Widget for Neck Stretches
let calculatedPercentage = "67%"
let neckWidget = OCKPatientWidget.defaultWidget(withTitle: "Neck Stretches",
  text: calculatedPercentage,
  tintColor: nil)

// Pass the Widgets When Creating the Insights View Controller
let viewController = OCKInsightsViewController(insightsItems: insights,
  patientWidgets: [stressWidget, neckWidget],
  thresholds: nil,
  store: store)
### Insights

<table>
<thead>
<tr>
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</tr>
</tbody>
</table>

### Threshold Alerts

**Stress**
High stress level. Try to do some relaxation exercises to reduce stress.
Insights

Stress: 8 of 10
Neck Stretches: 67%
Sleep: 3 hrs

Threshold Alerts

Stress
High stress level. Try to do some relaxation exercises to reduce stress.
**Insights**

<table>
<thead>
<tr>
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<th>Neck Stretches</th>
<th>Sleep</th>
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<tr>
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</tbody>
</table>

**Threshold Alerts**

**Stress**
High stress level. Try to do some relaxation exercises to reduce stress.

**Care Plan Update**
Your care plan adherence was 83% last week.

**Stress Levels**

```
<table>
<thead>
<tr>
<th></th>
<th>Thu 6/1</th>
<th>Fri 6/2</th>
<th>Sat 6/3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>
```
Bill James  6/8/2017, 3:02 PM
Hi Sam, how have you been responding to your care plan?

Sam Mravca  6/8/2017, 3:36 PM
I'm doing well, trying to reduce how much ibuprofen I take. The breathing exercises have been really helpful!

Bill James  6/8/2017, 5:07 PM
Sounds like great progress. Looking forward to our next follow up. Please reach out if you have any questions.

Thanks! :)}
CareKit
New features

Care Contents  Thresholds
Glyph Assets   Widgets
Optionality    Inbox
Read-Only
## CareKit

### New features

<table>
<thead>
<tr>
<th>Care Contents</th>
<th>Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glyph Assets</td>
<td>Widgets</td>
</tr>
<tr>
<td>Optionality</td>
<td>Inbox</td>
</tr>
<tr>
<td>Read-Only</td>
<td>Bridge API</td>
</tr>
</tbody>
</table>

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**Connecting CareKit to the Cloud**

- **Location:** Grand Ballroom A
- **Time:** Friday 10:00AM
CareKit Prototyping Tool

Srinath Tupil Muralidharan, Software Engineer
Exploration
Penick Medical Center General Surgery Post-Operative Discharge Instructions

MEDICATIONS:
You have been prescribed pain medication. Directly after discharge be sure to take:
- hydrocodone 5mg/aacetaminophen 300mg tablet - take 1-2 tablets every 4-6 hours as needed (not to exceed 8 tablets daily).

After 4 days of this pain medication, start decreasing the frequency of hydrocodone (e.g. twice a day).
If you have breakthrough pain, try adding ibuprofen to between your hydrocodone doses:
- hydrocodone 5mg/aacetaminophen 300mg and ibuprofen 600mg. By the second week
post discharge:shift completely to ibuprofen 600mg every 4-8 hours as needed.

It is important to your recovery that you do not wait until your pain becomes severe before taking this medication. It may work as well if you wait too long to take it between doses.
You may be prescribed antibiotics to help treat or prevent infection. If you need to be given antibiotics, be sure to complete the full course of antibiotics along with your prescribed pain medication. Antibiotics may be prescribed to you a few days into your recovery if risk of infection becomes clear.

ACTIVITY:
Although it might be painful, movement is a key part of your recovery starting from day 1. However, too strenuous of an activity can be detrimental to your recovery:
- For the first two days after surgery, be sure to stand up and move around for at least 2 minutes twice a day.
- After day 2, be sure to increase your activity level. At a minimum walk around for 5-10 minutes 3 or 4 per day. Activity is okay based on your comfort level, but avoid overly strenuous activity such as lifting heavy objects.

DIET:
You will need to start your recovery process on a liquid diet and then slowly add solid foods back into your diet. Depending on how your recovery is going, you may need to add more fiber to your diet, but be sure to not add too much fiber too early. You may also be told to use a laxative or stool softener, these can often be bought over the counter.
- Consume at least 4 fluid meals during your first 3 days of recovery. This can include soups, juices and shakes.

WOUND CARE:
A soft bandage has been placed over your incision. Keep your incision clean and dry.
- Don't touch the bandage for the first 2 days. On day 3, start changing the bandage daily to a new, dry sterile gauze. Don't get the bandages wet for the first 2 days!
- You may shower 3 days after your operation. If you notice any discoloration of the wound area, call your doctor immediately.
- If sterile strips were applied to the incision, do not remove, let them fall off on their own.

Call your doctor right away if you have any of the following:
- Fever of 100.4 degrees F or higher
- Pain or tenderness near your incision area
- Increased redness, swelling or bleeding at the incision site
- nausea or persistant pain that is not relieved by pain medication
- Your range of motion isn't improving after 7 days.

Penick Medical Center
Clinic Hours: Mon/Wed/Fri 7:30-5:30, Tue/Thurs 7:30-7:00, Sat 8-12, Closed Sundays & Holidays
June 8, 2017
Your care overview is 80% complete

CARE PLAN SURVEY

Pain (lower back)
Scale 1-10 (10 being very high)

8

PAIN MEDICATION

Acetaminophen 325mg

RECOMMENDATIONS

Keep bandage dry Do not change gauze
CARE PLAN SURVEY

Pain (lower back)
Scale 1-10 (10 being very high)

Acetaminophen 325mg

Keep bandage dry Do not change gauze
Pain (lower back)
Scale 1-10 (10 being very high)  

Acetaminophen 325mg

Keep bandage dry  Do not change gauze

Assessment
Pain

06/04/2017
06/12/2019

[1,0,1,0,1,0,1,0,1]
NO
**Pain (lower back)**
Scale 1-10 (10 being very high) 8

**Acetaminophen 325mg**

**Recommendations**
*Keep bandage dry Do not change gauze*

**Care Plan Survey**

**Type**: Assessment

**Identifier**: Pain

**Group Identifier**: Care Plan Survey

**Title**: Pain (lower back)

**Text**: Scale 1-10

**Activity Start Date**: 06/04/2017

**Activity End Date**: 06/12/2019

**Occurrences**: [1,0,1,0,1,0,1]

**Optional**: NO
CARE PLAN SURVEY

Pain (lower back)
Scale 1-10 (10 being very high) 8

PAIN MEDICATION

Acetaminophen 325mg

RECOMMENDATIONS

Keep bandage dry Do not change gauze

activityStartDate: 06/04/2017
activityEndDate: 06/12/2019
Pain (lower back)
Scale 1-10 (10 being very high) 8

Acetaminophen 325mg

Activity Start Date: 06/04/2017
Activity End Date: 06/12/2019
Occurrences: [3,3,3,3,3,3,3]
Optional: NO
Acetaminophen 325mg
06/04/2017 - 06/12/2019

Pain (lower back)
Scale 1-10 (10 being very high) 8

Keep bandage dry Do not change gauze

Intervention
Pain Medication
Acetaminophen
Acetaminophen
325mg
06/04/2017
06/12/2019
[3,3,3,3,3,3,3]
NO
**Acetaminophen**

**Pain Medication**

**Acetaminophen**

**325mg**

**Intervention**

**Activity Start Date:** 06/04/2017

**Activity End Date:** 06/12/2019

**Occurrences:** [3,3,3,3,3,3,3]

**Optional:** NO

**Care Plan Survey**

**Pain (lower back):**
Scale 1-10 (10 being very high)

8

**Recommendations**

**Keep bandage dry:** Do not change gauze
Insights

Pain
8 of 10

Weight
175 lbs

Threshold Alerts

Pain (lower back)
High Pain. Please avoid any intense physical activities for the next few days.

Insights

Care Plan Update
Your care plan adherence was 83% last week.

Title-3

Title-4

Day | Date
--- | ---
Day | 44 | 30
Day | 66 |
Day | 30 |
Day | 62 |
Day | 43 |
Day | 23 | 64
Day | 73 |
Day | 97 |
Day | 100 |
Pain (lower back)
High Pain. Please avoid any intense physical activities for the next few days.

Threshold Alerts

Insights

Care Plan Update
Your care plan adherence was 83% last week.
Threshold Alerts

Pain (lower back)
High Pain. Please avoid any intense physical activities for the next few days.

Insights

Care Plan Update
Your care plan adherence was 83% last week.

Plist File

<table>
<thead>
<tr>
<th>title</th>
<th>Pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>text</td>
<td>8 of 10</td>
</tr>
<tr>
<td>tintColor</td>
<td>0xff0000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>title</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>text</td>
<td>175 lbs</td>
</tr>
<tr>
<td>tintColor</td>
<td>0x0000ff</td>
</tr>
<tr>
<td>type</td>
<td>careTeam</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>name</td>
<td>Dr. Maria Ruiz</td>
</tr>
<tr>
<td>relation</td>
<td>Physician</td>
</tr>
<tr>
<td>monogram</td>
<td>MR</td>
</tr>
<tr>
<td>phone</td>
<td>800-555-5555</td>
</tr>
<tr>
<td>sms</td>
<td>888-555-5512</td>
</tr>
<tr>
<td>email</td>
<td><a href="mailto:mruiz@icloud.com">mruiz@icloud.com</a></td>
</tr>
<tr>
<td>facetimeVideo</td>
<td>888-555-5512</td>
</tr>
<tr>
<td>facetimeAudio</td>
<td>888-555-5512</td>
</tr>
</tbody>
</table>
Dr. Maria Ruiz
Physician

contact info:
- **email**: mruiz@icloud.com
- **phone**: 800-555-5555
- **text**: 888-555-5512
- **phone**: 888-555-5512

**type**: careTeam
**name**: Dr. Maria Ruiz
**relation**: Physician
**monogram**: MR
**phone**: 800-555-5555
**sms**: 888-555-5512
**email**: mruiz@icloud.com
**facetimeVideo**: 888-555-5512
**facetimeAudio**: 888-555-5512

Plist File
Xcode
Create great apps for Mac, iPhone, and iPad.

Xcode includes everything developers need to create great applications for Mac, iPhone, iPad, Apple TV, and Apple Watch. Xcode provides developers a unified workflow for user interface design, coding, testing, and debugging. The Xcode IDE combined with the Swift programming language make developing apps easier and more fun than ever before.

What’s New in Version 8.3.2
Xcode 8.3.2 includes Swift 3.1 and SDKs for iOS 10.3, watchOS 3.2, tvOS 10.2, and macOS Sierra 10.12.
Introducing CareKit

Care doesn’t only happen at the doctor’s office. That’s why Apple created CareKit. An open source framework, CareKit allows developers to build beautiful apps that leverage a variety of customizable modules. CareKit apps will let users regularly track care plans, monitor their progress, and share their insights with care teams. Since CareKit is open source, developers can build upon existing modules and contribute new code to help users worldwide create a bigger—and better—picture of their health.
Framework

The CareKit framework offers core modules that includes a Care Card for displaying care plans, a Symptom and Measurement Tracker for monitoring symptoms and tracking objective measurements, Insights for surfacing health tips and visualizing trends, and Connect to engage care teams and family members as partners in your health journey.

The framework comes with a sample app, API documentation, and a programming guide to help you build an incredible care app. CareKit is localized to many languages for use world wide.

Using CareKit

CareKit is easy to use. It has six modules; you can use as many as you’d like in your app.

These four modules provide the user interface:

- Care Card, manages tasks that a user needs to perform as part of a treatment. For example, taking a medication, changing a wound dressing, or meditating.
- Symptom and Measurement Tracker, manages tasks that evaluate the effectiveness of a treatment plan. These include subjective assessment of symptoms (such as pain scales) and objective measurements (such as blood pressure).
- Insights, displays charts that are intended to provide insight to a user by showing the relationship between treatment and progress. An insight can also be a text that provides a tip or alert to help someone stay on track with their health goals.
- Connect, helps a user communicate their health status and Insights data with care teams and friends/family members.

These two modules manage data:

Links

- Get it on GitHub
- Documentation
- API Reference
- Sample App
- Watch the Video

Best Practices

The CareKit framework has a local data store, but does...
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CareKit is an open-source software framework for creating apps that help people better understand and manage their health.
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Demo
Building a custom prototype app
CareKit Prototyping Tool
CareKit Prototyping Tool

Limitations
CareKit Prototyping Tool

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• Prototyping only
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Features
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• Highly customizable
• Can be leveraged by developers and designers
Open Source.

It’s what WE make of it.
Collaboration

Ideas...
Collaboration

Ideas...

Population views

• Researchers
• Care teams
Collaboration
Ideas...

Population views
• Researchers
• Care teams

EMR Hooks
Collaboration
Ideas...

Population views
• Researchers
• Care teams

EMR Hooks

Modules
• Education
• Social network
• Rewards
Collaboration

Our role
Collaboration
Our role

Accessibility
Collaboration
Our role

Accessibility

Localization
Collaboration
Our role

Accessibility

Localization

QA testing
Collaboration
Our role

Accessibility

Localization

QA testing

Merge into framework
Contribute
More Information

## Related Sessions

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