An Apple a Day:
DEVELOPING APPS WITH HEALTHKIT

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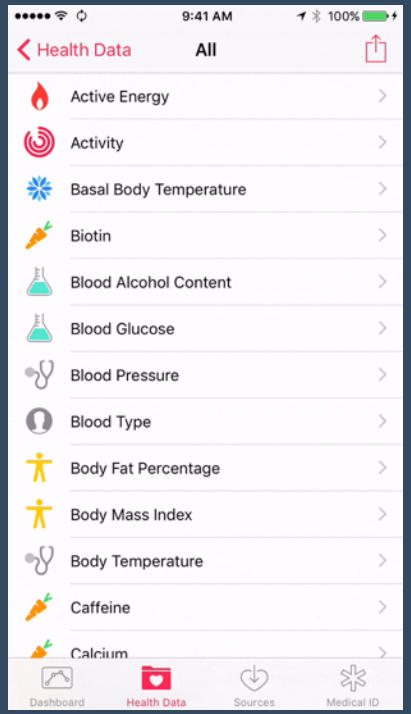
INTRODUCING
HealthKit

Nashville CocoaHeads - HealthKit

What is HealthKit?

What can HealthKit store?



HEALTH SAMPLE DATA

- **Body Measurements**, such as weight
- **Fitness Measurements**, such as active energy burned exercising, walking & running distance, exercise minutes
- **Nutrition**, such as fiber or caffeine
- **Sleep Analysis**
- **Vitals**, such as heart rate

USER HEALTH CHARACTERISTIC DATA

- Things that don't change for a user, like birthdate and blood type

Nashville CocoaHeads - HealthKit

What apps use HealthKit?

HeartBeat

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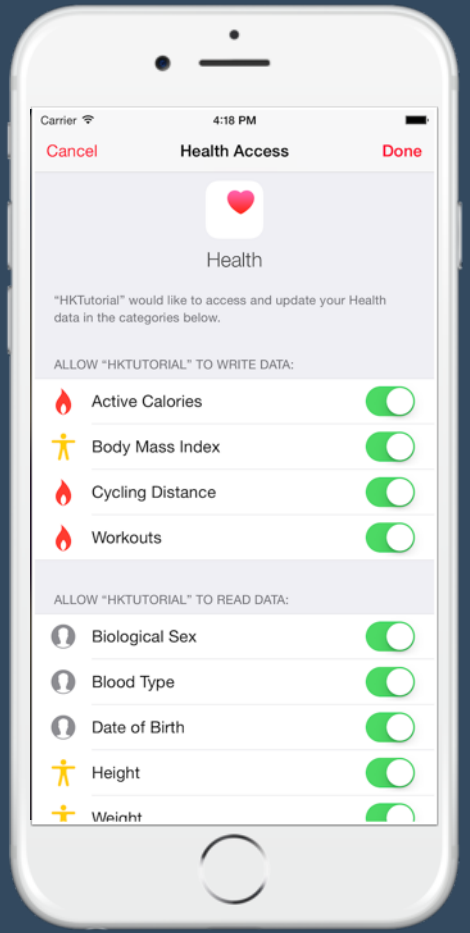
App Store Considerations

How do you code
for HealthKit?

Nashville CocoaHeads - HealthKit

Getting Started: HealthKit Permissions

You must request read/write permission for each HealthKit type from a user



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Getting Permissions in HeartBeat App Code

TO THE CODE!

How do you read from HealthKit?

Direct method calls for characteristic data, such as dateOfBirthWithError:

For sample data

- Statistics query
- Statistics collection query
- Correlation query
- Source query
- Activity summary query

HealthKit Objects describe values in HealthKit

UUID
Metadata
Source Revision
Device

Samples have additional properties

- Type
- Start Date
- End Date

Units and Quantities

HKUnit is extremely powerful for converting readings into the proper unit

For instance, getting weight in pounds or grams can be done using HKUnit

Reading Age in HeartBeat App Code

TO THE CODE!

How do you stream data from HealthKit?

- Observer query
- Anchored object queries
- Statistics collection query
- Activity summary query

Streaming Heart Rate Query

TO THE CODE!

How do you write to HealthKit?

- Get the HKObjectType for the sample you want to record
- Create a HKSample object for your sample with the sample values
- Save the object to the HealthKit store

Saving Workout Code

TO THE CODE!

DEMO TIME

HeartBeat App

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Use the Apple Watch to monitor heart rate more frequently with HKWorkoutSession

- Can start a type of workout and the Apple Watch will record accordingly

HKWorkoutSession Code

TO THE CODE!

Syncing HealthKit from the Apple Watch

- Takes a while
- Use Watch Connectivity to update iOS UI from HealthKit readings on the watch

DEMO TIME

GET ON THE BIKE

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Questions?
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