API Collection

# Samples

Create and save health and fitness samples.

## Overview

The HealthKit store saves most health and fitness data using HKSample subclasses. All sample subclasses record information at a specified time. If the sample's startDate and endDate properties are the same, the sample represents a point in time. If the endDate is after the startDate, the sample represents a time interval.

HealthKit uses different HKSample subclasses to store different types of data:

- HKQuantitySample objects store quantities—a numerical value and units. Most HealthKit data types use quantity samples. For example, height, heart rate, and dietary energy consumed all use quantity samples.

- HKCategorySample objects store a single option selected from a short list. For example, category samples record sleep data (the user can be in bed, asleep, or awake).

- HKCorrelation samples combine two or more samples into a single value. For example, correlation samples represent food intake and blood pressure samples. A food sample contains any number of nutrition samples, while a blood pressure sample contains both a systolic and a diastolic sample.

- HealthKit represents specialized data types with sample subclasses such as HKCDADocumentSample, HKWorkoutRoute, and HKWorkout.

## Topics

### Essentials

📄 Saving data to HealthKit

Create and share HealthKit samples.

{} Reading and Writing HealthKit Series Data

Share and read heartbeat and quantity series data using series builders and queries.

# Basic samples

class `HKCumulativeQuantitySample`

A sample that represents a cumulative quantity.

class `HKDiscreteQuantitySample`

A sample that represents a discrete quantity.

class `HKQuantitySample`

A sample that represents a quantity, including the value and the units.

class `HKCategorySample`

A sample with values from a short list of possible values.

class `HKCorrelation`

A sample that groups multiple related samples into a single entry.

≣ Units and quantities

Objects used to specify a quantity for a given unit, and to convert between units.

≣ Metadata Keys

Constants used to add metadata to objects stored in HealthKit.

# Series data

class `HKQuantitySeriesSampleBuilder`

A builder object for incrementally building a sample that contains multiple quantities.

class `HKHeartbeatSeriesBuilder`

A builder object for incrementally building a heartbeat series.

class `HKHeartbeatSeriesSample`

A sample that represents a series of heartbeats.

# Electrocardiograms

`class` `HKElectrocardiogram`

A sample for electrocardiogram data.

`class` `VoltageMeasurement`

The voltage for all leads at a single point in time.

# Audiograms

`class` `HKAudiogramSample`

A sample that stores an audiogram.

`class` `HKAudiogramSensitivityPoint`

A hearing sensitivity reading associated with a hearing test.

# Medical records

📄 Accessing Health Records

Read clinical record data from the HealthKit store.

📄 Accessing Sample Data in the Simulator

Set up sample accounts to build and test your app.

{} Accessing a User's Clinical Records

Request authorization to query HealthKit for a user's clinical records and display them in your app.

{} Accessing Data from a SMART Health Card

Query for and validate a verifiable clinical record.

`class` `HKClinicalRecord`

A sample that stores a clinical record.

`class` `HKFHIRResource`

An object containing Fast Healthcare Interoperability Resources (FHIR) data.

`class` `HKVerifiableClinicalRecord`

A sample that represents the contents of a SMART Health Card or EU Digital COVID Certificate.

class `HKVerifiableClinicalRecordSubject`

The subject associated with a signed clinical record.

class `HKCDADocumentSample`

A Clinical Document Architecture (CDA) sample that stores a single document.

class `HKDocumentSample`

An abstract class that represents a health document in the HealthKit store.

static let `CDA:` `HKDocumentTypeIdentifier`

The CDA Document type identifier, used when requesting permission to read or share CDA documents.

class `HKDocumentType`

A sample type used to create queries for documents.

# Vision prescriptions

class `HKVisionPrescription`

A sample that stores a vision prescription.

class `HKGlassesPrescription`

A sample that stores a prescription for glasses.

class `HKContactsPrescription`

A sample that store a prescription for contacts.

class `HKGlassesLensSpecification`

An object that contains the glasses prescription data for one eye.

class `HKContactsLensSpecification`

An object that contains the contacts prescription data for one eye.

class `HKLensSpecification`

An abstract superclass for lens specifications.

class `HKVisionPrism`

Prescription data for eye alignment.

class `HKPrescriptionType`

A type that identifies samples that store a prescription.

# Walking steadiness classifications

`enum` `HKAppleWalkingSteadinessClassification`

A classification of a score based on the steadiness of the user's gait.

`HKAppleWalkingSteadinessClassificationForQuantity`

Provides a classification for a score that measures the steadiness of the user's gait.

`HKAppleWalkingSteadinessMaximumQuantityForClassification`

Returns the maximum score for the steadiness of the user's gait based on the provided classification.

`HKAppleWalkingSteadinessMinimumQuantityForClassification`

Returns the minimum score for the steadiness of the user's gait based on the provided classification.

# Attachments

`class` `HKAttachment`

A file that is attached to a sample in the HealthKit store.

`class` `HKAttachmentStore`

The access point for attachments associated with samples in the HealthKit store.

`class` `HKAttachmentDataReader`

A reader that provides access to an attachment's data.

# Digital signatures

📄 Adding Digital Signatures

Cryptographically sign samples.

# Abstract superclasses

`class` `HKQuantitySample`

A sample that represents a quantity, including the value and the units.

`class` `HKSample`

A HealthKit sample represents a piece of data associated with a start and end time.

```
class HKObject
```

A piece of data that can be stored inside the HealthKit store.

## Deprecated classes

~~class HKCumulativeQuantitySeriesSample~~

A sample representing a series of cumulative quantity values.

Deprecated

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# See Also

## Health data

📄 Saving data to HealthKit

Create and share HealthKit samples.

📄 Reading data from HealthKit

Use queries to request sample data from HealthKit.

```
class HKHealthStore
```

The access point for all data managed by HealthKit.

{} Creating a Mobility Health App

Create a health app that allows a clinical care team to send and receive mobility data.

☰ Data types

Specify the kind of data used in HealthKit.

☰ Queries

Query health and fitness data.

{} Visualizing HealthKit State of Mind in visionOS

Incorporate HealthKit State of Mind into your app and visualize the data in visionOS.

{} Logging symptoms associated with a medication

Fetch medications and dose events from the HealthKit store, and create symptom samples to associate with them.