



Week 1: Getting Started with SAP Cloud Platform SDK for iOS

Unit 1: Welcome

Welcome

Course structure

Weeks 1 through 4

- 5-7 video units and self-tests
- 1 weekly assignment
- Online discussion forum (collaborate, ask questions)
- ~4-5 hours of effort each week

Week 5

- Final exam

Record of achievement

- Collect at least 50% of the total points available in all online tests during the course

Week 1

Getting Started with SAP Cloud Platform SDK for iOS

Video 1

Self-test 1

Video 2

Self-test 2

Video n

Self-test n

Weekly assignment



Week 2

OData Back-End Connectivity

Week 3

SAP Fiori for iOS User Experience

Week 4

Advanced Topics and Deployment

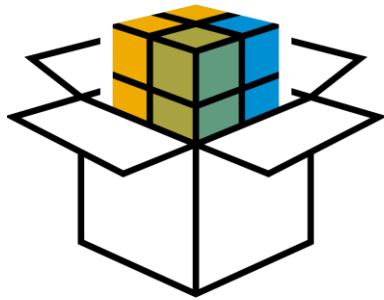
Week 5

Final exam



Welcome

SAP Cloud Platform SDK for iOS



SAP Cloud Platform SDK



Back-End Connectivity



User Experience



Advanced Topics

Week 1

Overview

Week 2

OData

Week 3

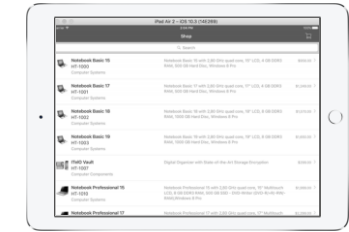
SAP Fiori for iOS Apps

Week 4

Security & Offline

Welcome

SAP Cloud Platform SDK for iOS – Hands-on Shopping Cart app development: outlook



Week 1

Week 2

Week 3

Week 4

Xcode Project Setup

Back-End Connectivity

User Experience

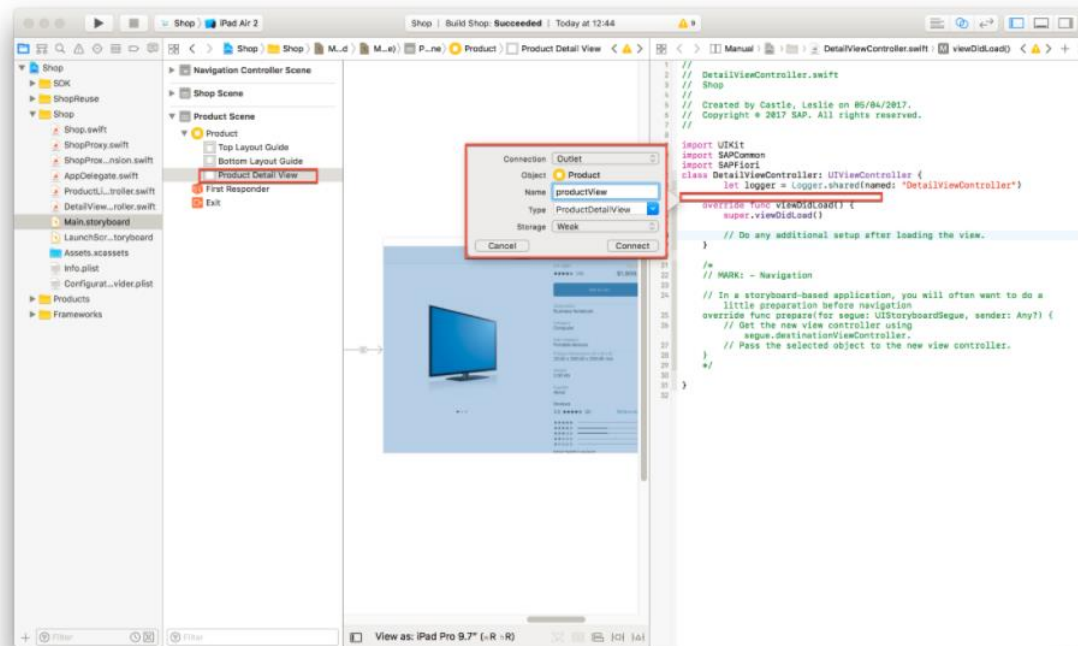
Final Shopping Cart

Welcome

Hands-on exercises

Step 8

Open *Main.storyboard* and show the *Product* Scene in Assistant editor. Drag an outlet from *Product Detail View* to *DetailViewController.swift*. Select Storage "Weak" and name it "productView".



Step 9

Close the Assistant editor, open the *DetailViewController.swift*. Add *ProductDetailViewDelegate* using an extension on the *DetailViewController* at the end of the file. Leave the delegate-functions empty for now.

```
extension DetailViewController: ProductDetailViewDelegate {  
  
    func didSelectAddToCart(_ button: UIButton) {  
  
    }  
  
    func didSelectReview(_ review: Review) {  
  
    }  
  
    func didSelectShowAllReviews(_ button: UIButton) {  
  
    }  
  
    func didSelectWriteReview(_ button: UIButton) {  
  
    }  
  
}
```

Add *productID* variable and *product* variable after the *logger* declaration.

```
var productID: String?  
  
fileprivate var product: Product? {  
    didSet {  
        productView.product = product  
        navigationController?.title = product?.name  
        productView.delegate = self  
    }  
}
```

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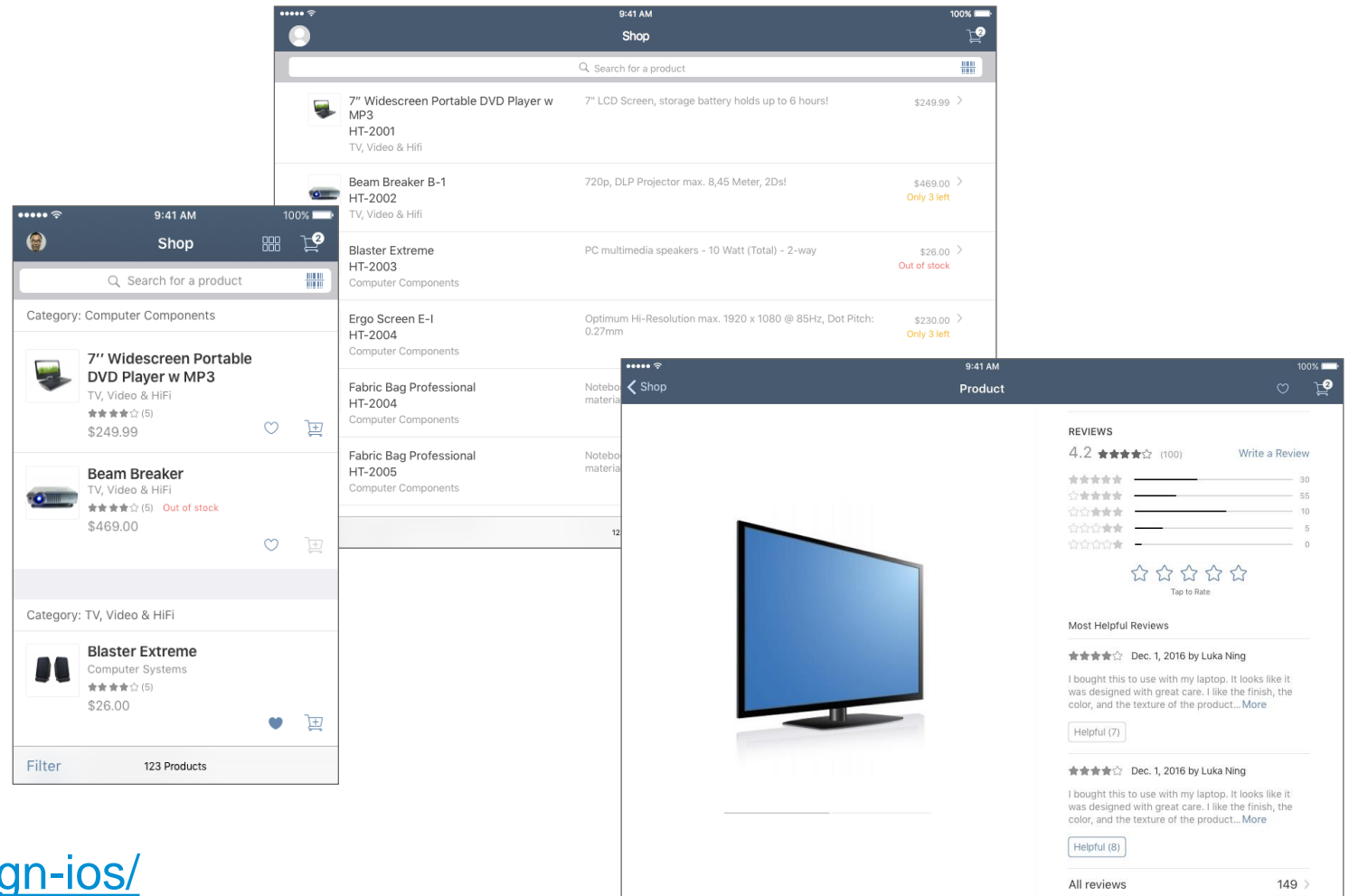
Week 1: Getting Started with SAP Cloud Platform SDK for iOS

Unit 2: Our Goal: Building a Shopping Cart App

Our Goal: Building a Shopping Cart App

Design-Driven Development

- UX First
- SAP Fiori Design
- Responsive



<https://experience.sap.com/fiori-design-ios/>

Our Goal: Building a Shopping Cart App

Hands-on



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Week 1: Getting Started with SAP Cloud Platform SDK for iOS

Unit 3: Introduction to SAP Cloud Platform SDK for iOS

Introduction to SAP Cloud Platform SDK for iOS

The SAP and Apple partnership

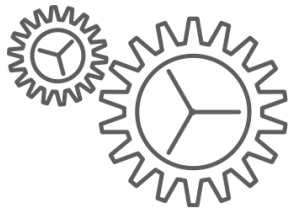
“SAP is the ideal partner to help us truly transform how businesses around the world are run on iPhone and iPad.”

Tim Cook

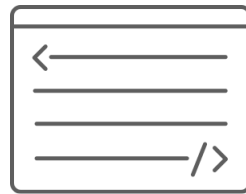


Introduction to SAP Cloud Platform SDK for iOS

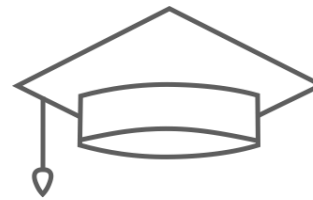
The SAP and Apple partnership



Processes



SDK



Academy



Apps

Introduction to SAP Cloud Platform SDK for iOS

Enterprise app development: big picture

Addressing the end-to-end development lifecycle

Preparation Phase

- Understand
- Ideate
- Expert staffing

Discover Phase

- Scope
- Research
- Synthesize

Design Phase

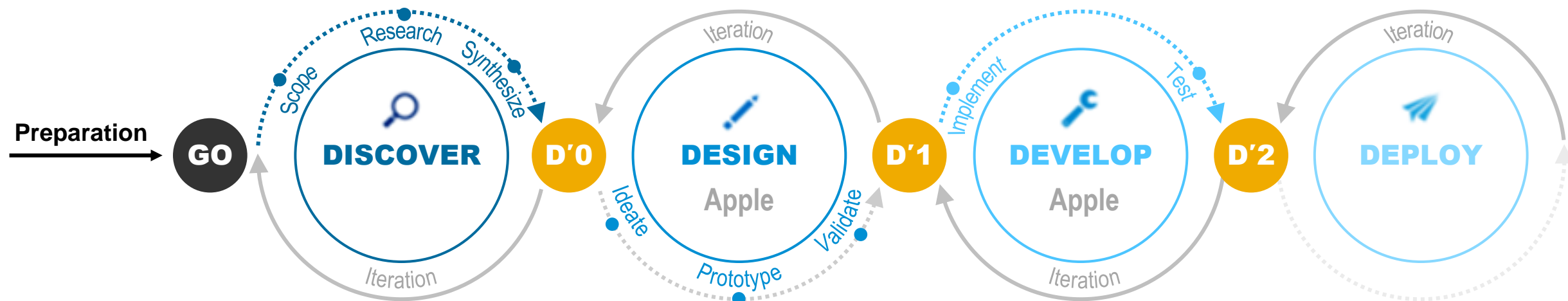
- Ideate
- Prototype
- Validate

Develop Phase

- Implement
- Test

Deploy Phase

- Understand
- Ideation
- Portfolio case

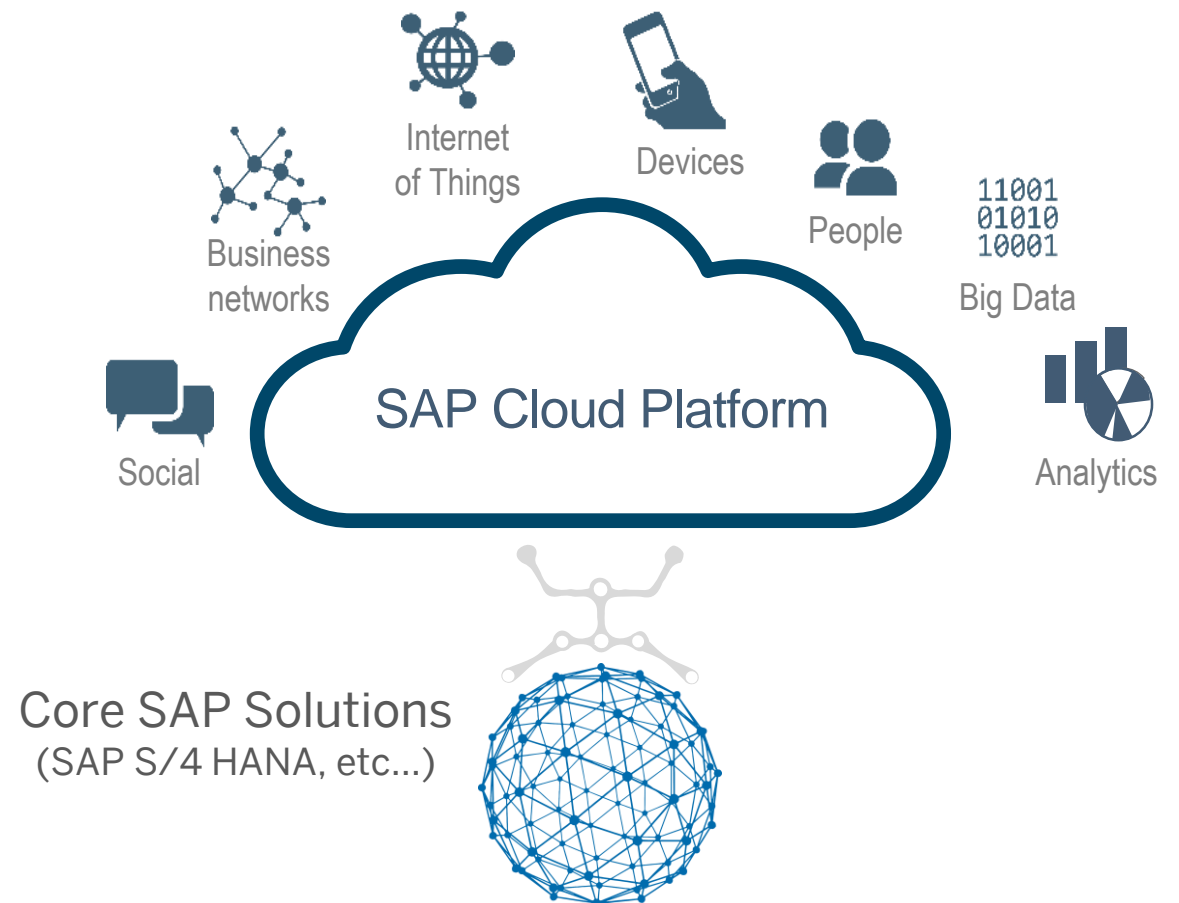


Introduction to SAP Cloud Platform SDK for iOS

SAP Cloud Platform

Mobile services are an integral part of the cloud innovation platform from SAP

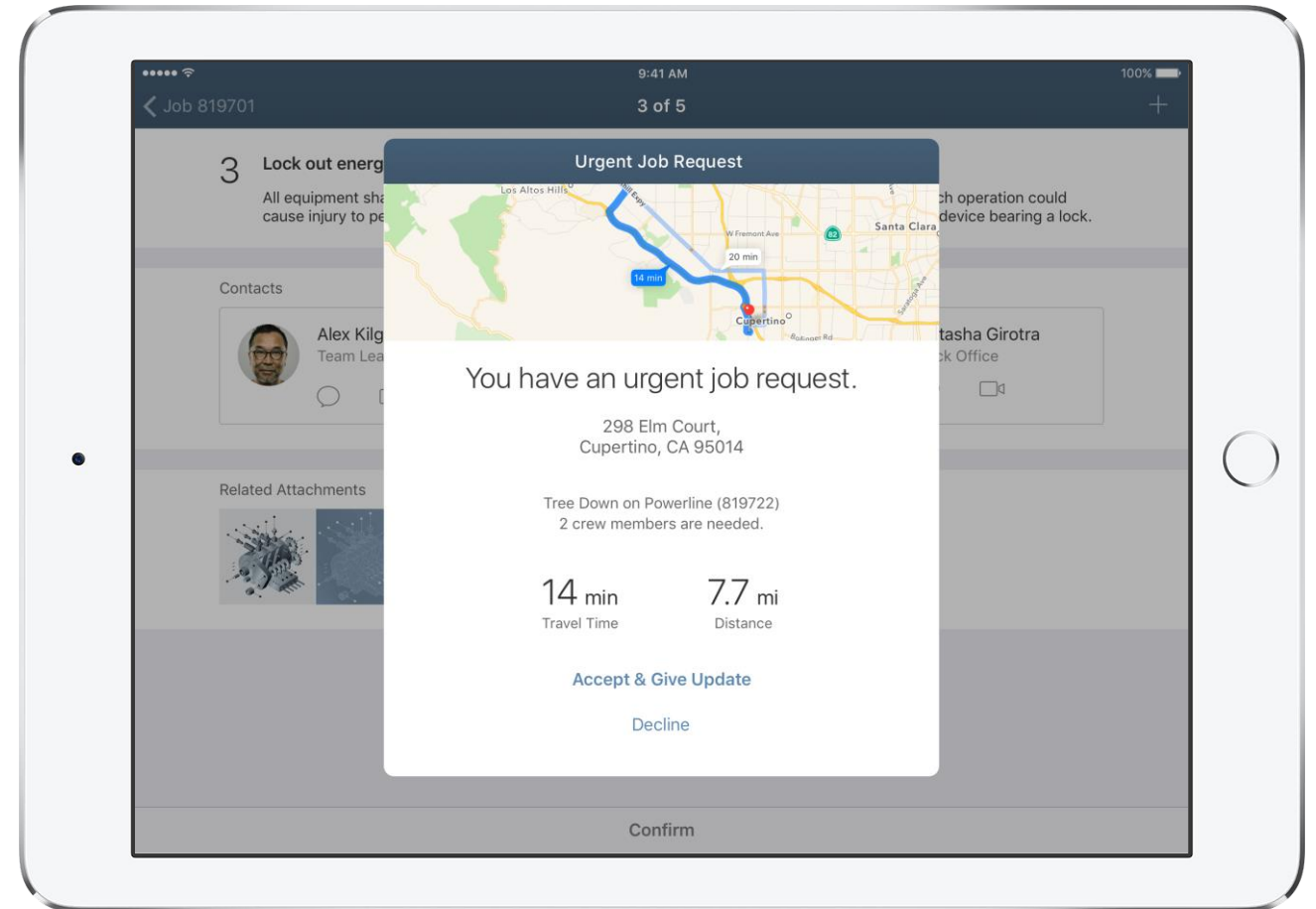
- Enables agile and innovative apps that differentiate your business
- Adds a consumer-grade UX to your core SAP solutions
- Access to many more SAP Cloud Platform services, SAP S/4HANA, and other core SAP solutions



Introduction to SAP Cloud Platform SDK for iOS

A great native UX is key to the app's success

- Provides the best app performance
- Intuitive and easy to learn
- Allows instant access to the latest iOS and device innovations

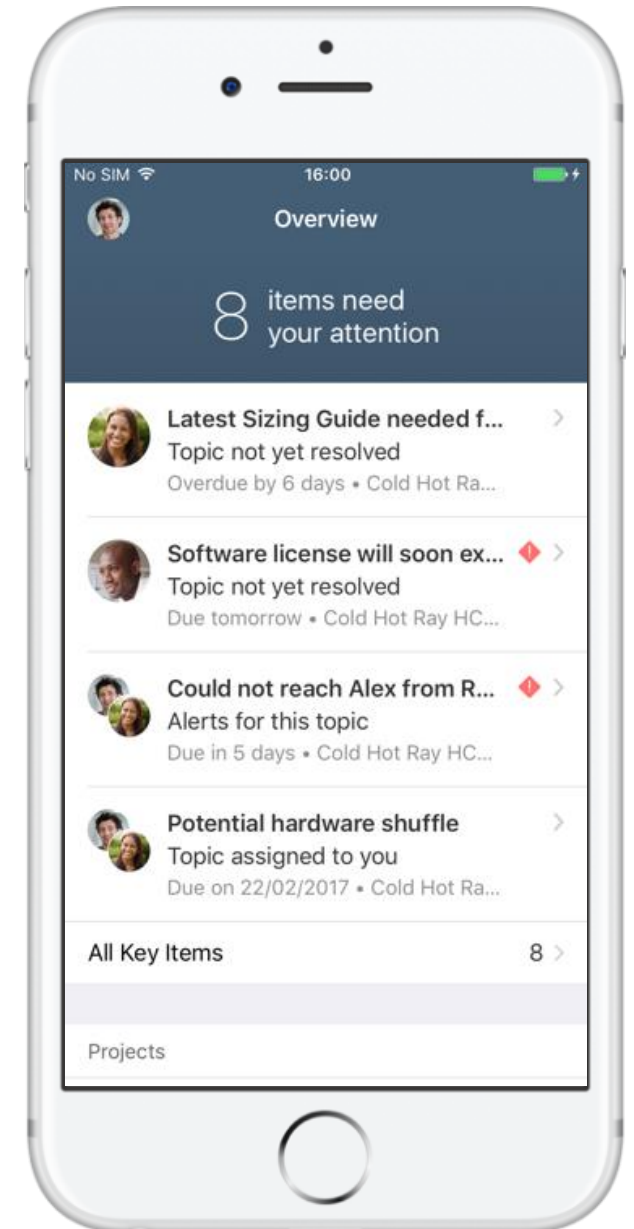


Introduction to SAP Cloud Platform SDK for iOS

SAP enterprise apps for iOS

SAP Project Companion – Professional Services

- Gain an overview of the project's key data
- Receive all relevant information on action items that need your attention at your fingertips
- Reach your team members easily and improve project-related communication
- Increase productivity and decrease time spent on unplanned distractions



Introduction to SAP Cloud Platform SDK for iOS

Accelerating native enterprise app development

- Native UI layer implementing the SAP Fiori design language
- Mobile service API for online and offline data access, security and more
- Based on Swift and Xcode
- Rapidly generate scaffolding for enterprise apps



Introduction to SAP Cloud Platform SDK for iOS

App development with SAP Cloud Platform

Apps



SDK and front-end tools



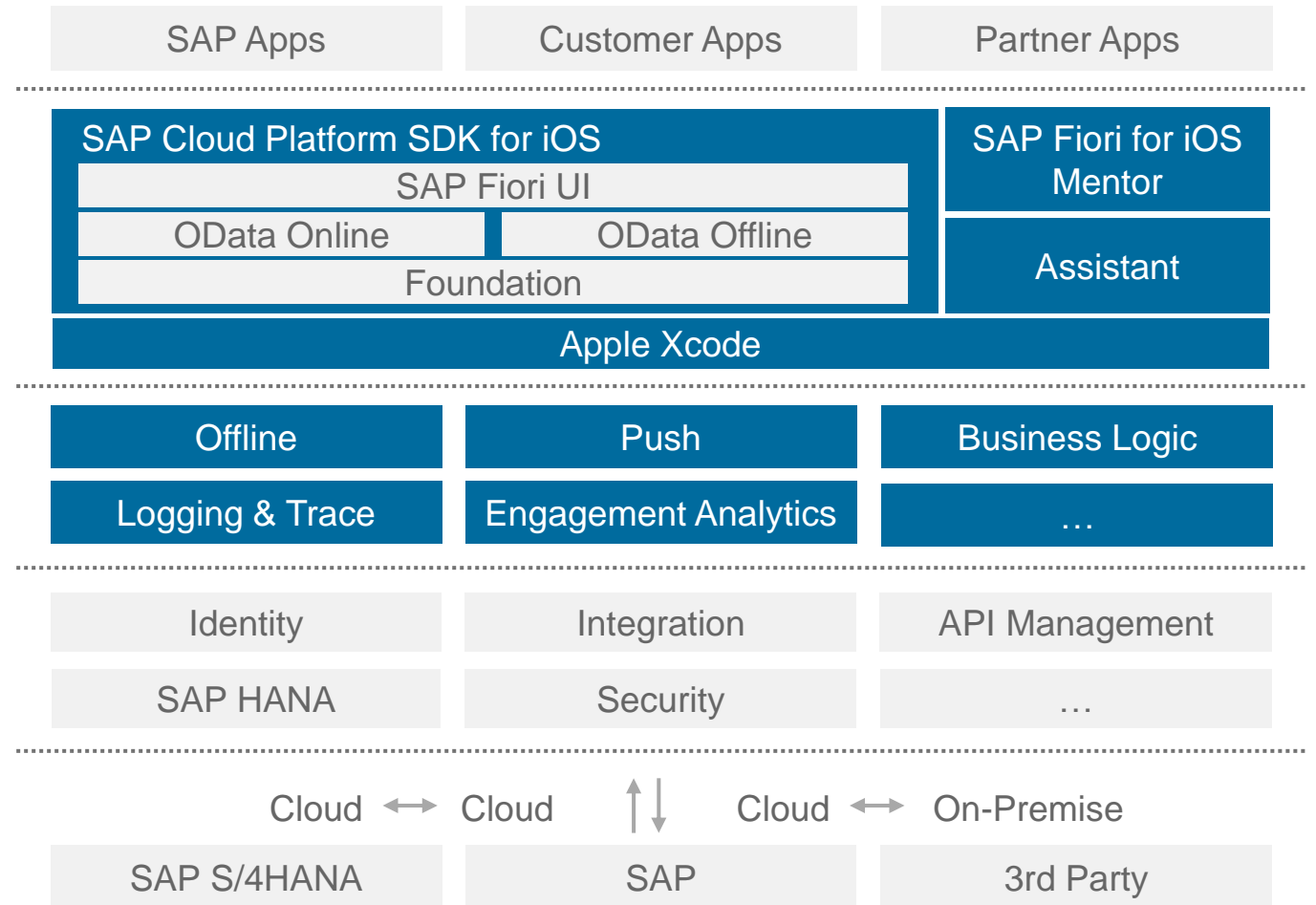
Mobile services



Cloud platform services



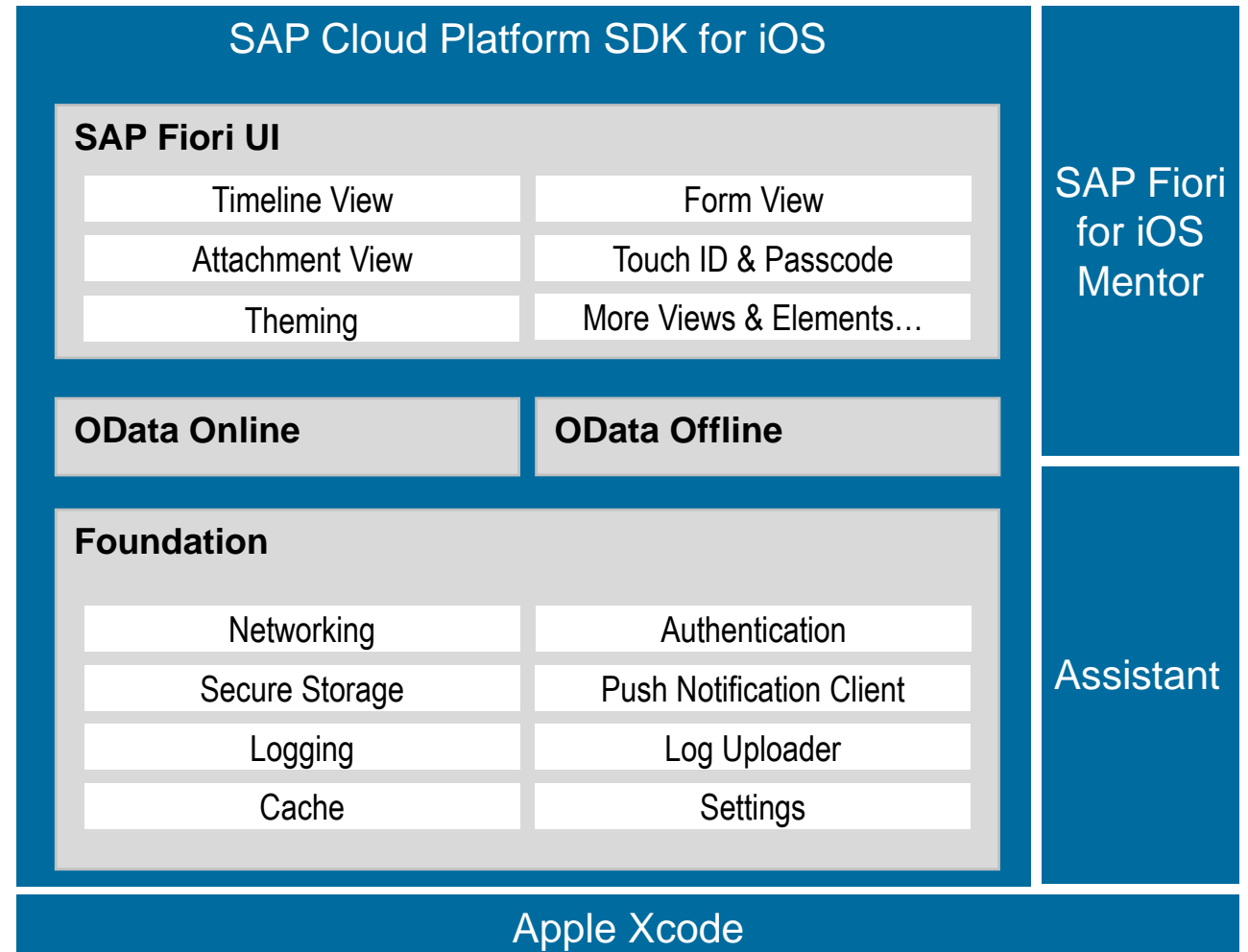
Back-end systems



Introduction to SAP Cloud Platform SDK for iOS

Key building blocks and front-end tools

- SAP Fiori UI provides a native, iOS HIGH-compliant implementation of the SAP Fiori design language for iOS
- OData components add offline and online service consumption capabilities to your app
- Foundation layer provides key enterprise functionality for security, connectivity, and more
- SAP Fiori for iOS Mentor app generates customized UI code snippets for SAP Fiori controls
- Assistant generates app scaffolding from back-end enterprise APIs
- Fully Swift-based API accelerates enterprise app development in Apple Xcode IDE



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Week 1: Getting Started with SAP Cloud Platform SDK for iOS

Unit 4: SAP Cloud Platform and Mobile Services

SAP Cloud Platform and Mobile Services

App development with SAP Cloud Platform

Apps



SDK and front-end tools



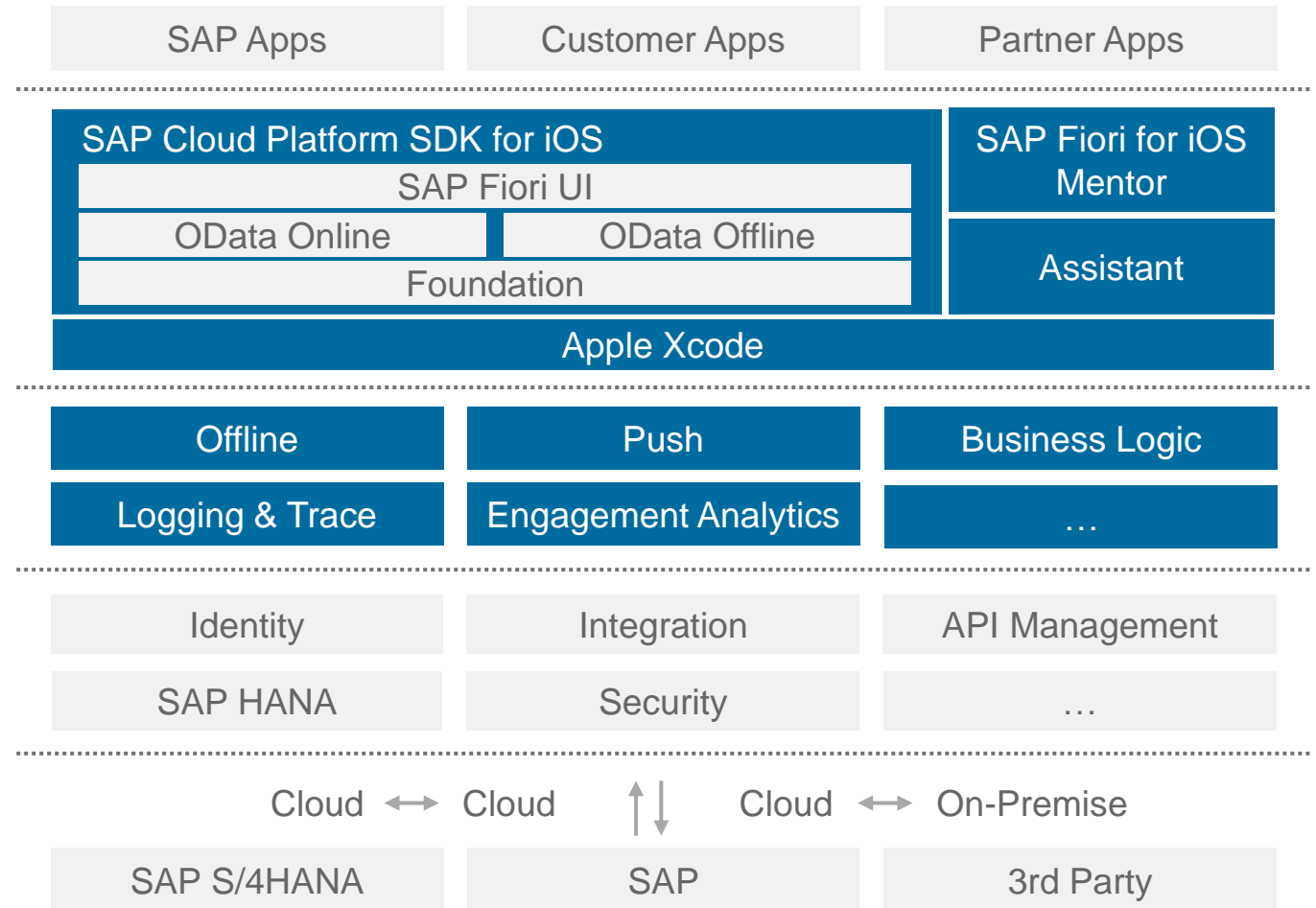
Mobile services



Cloud platform services

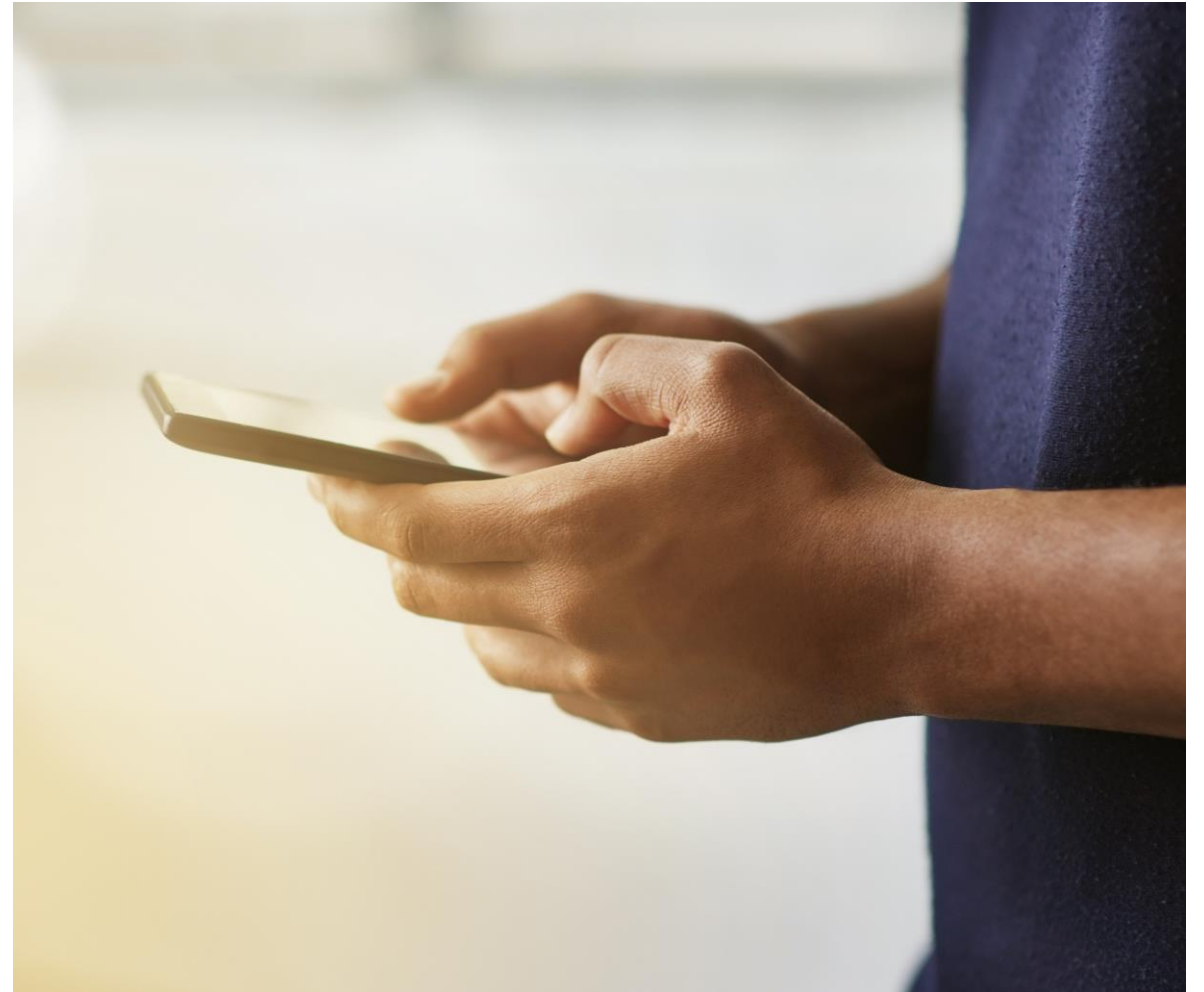


Back-end systems



SAP Cloud Platform and Mobile Services

Mobile services

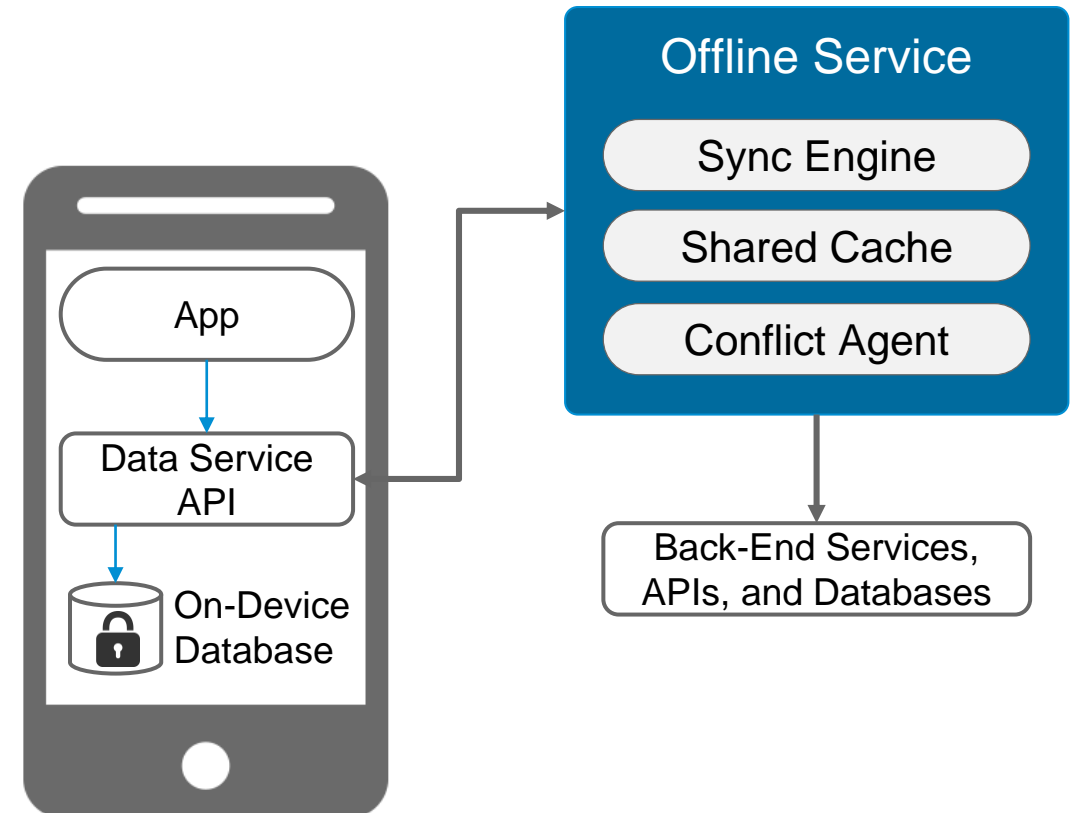


SAP Cloud Platform and Mobile Services

Offline

Secure and Smart

- Support online and offline with one SDK
- Object-oriented Data Service API is generated from back-end service definition
- Caching for performance
- Optimized synchronization
 - Efficiently sync only changed data
 - Sync engine batches and compresses bulk updates
 - Conflict handling
- Encrypted mobile database

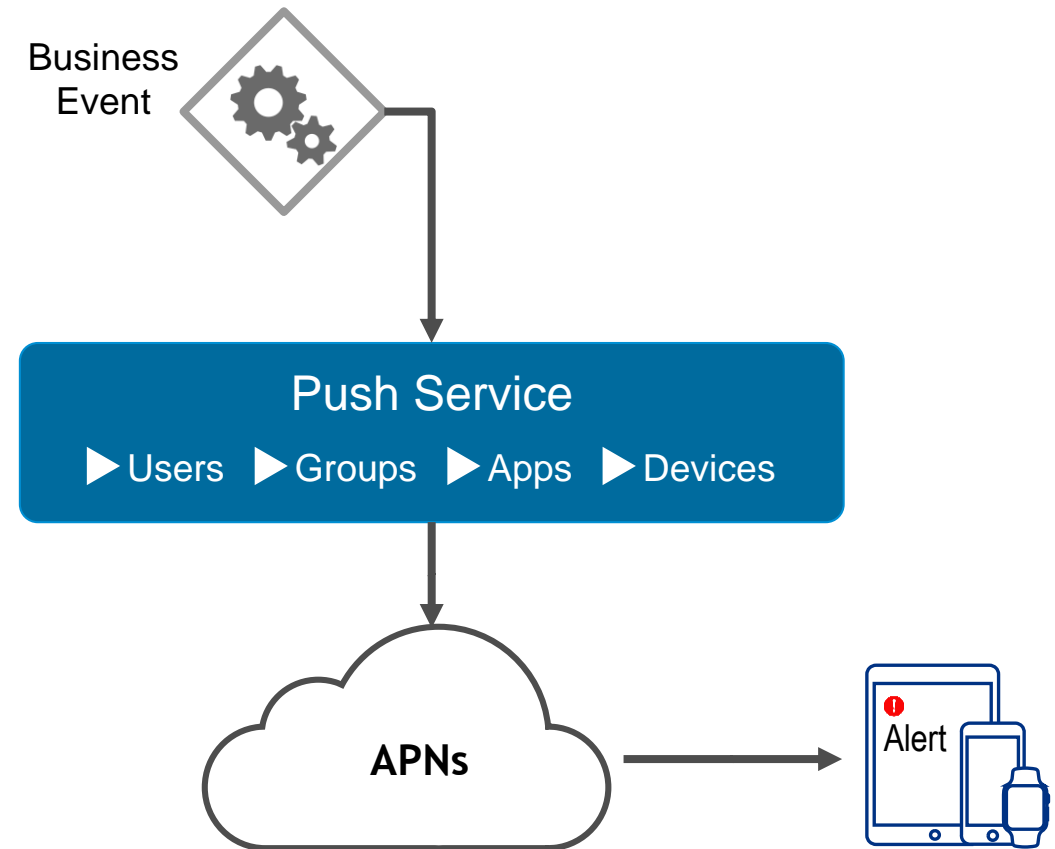


SAP Cloud Platform and Mobile Services

Push notifications

Draw users in with instant engagement

- Inform users when new data becomes available for your app
- REST API for easy integration with notification providers
- Notification targeting options include:
by device, application, user list, and group

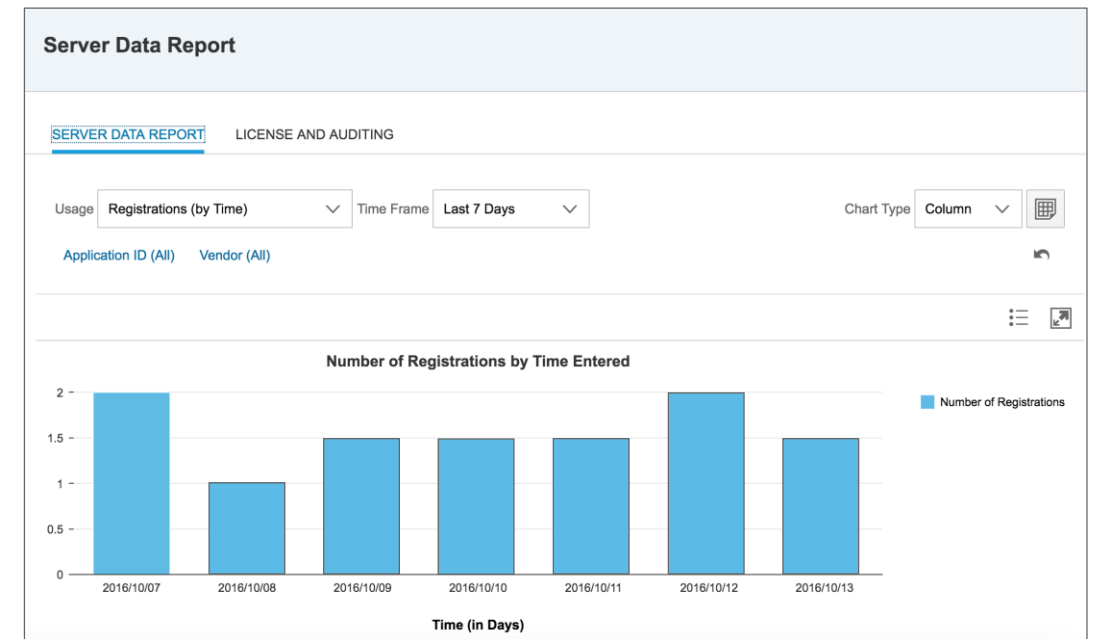
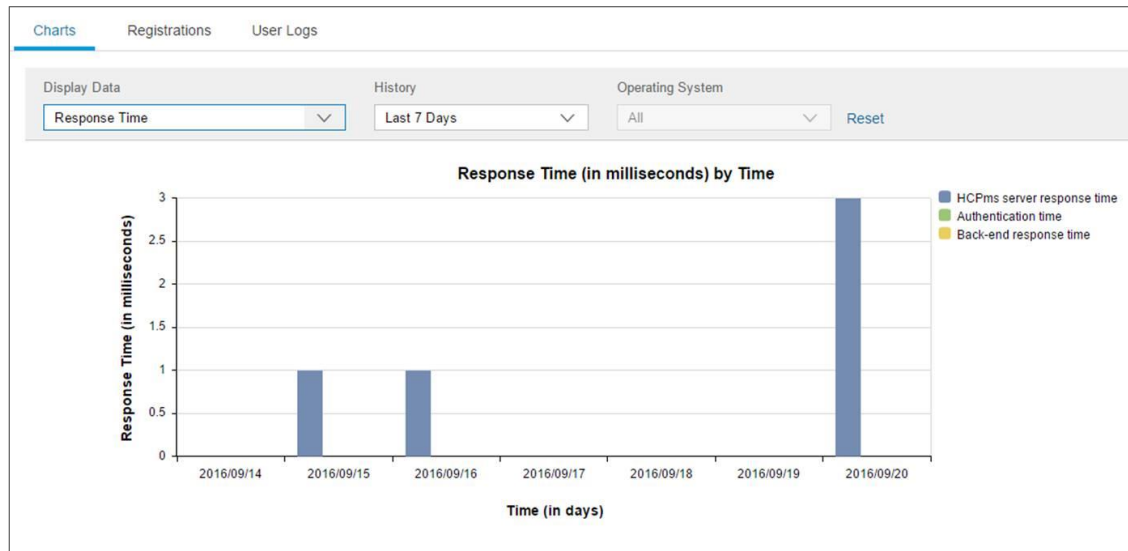


SAP Cloud Platform and Mobile Services

Engagement analytics

Insights into app engagement

- Report on registrations, users, and server data across multiple dimensions
- Usage reporting by user, app version, device type, time frame, registration counts, and more
- Download data for custom analysis

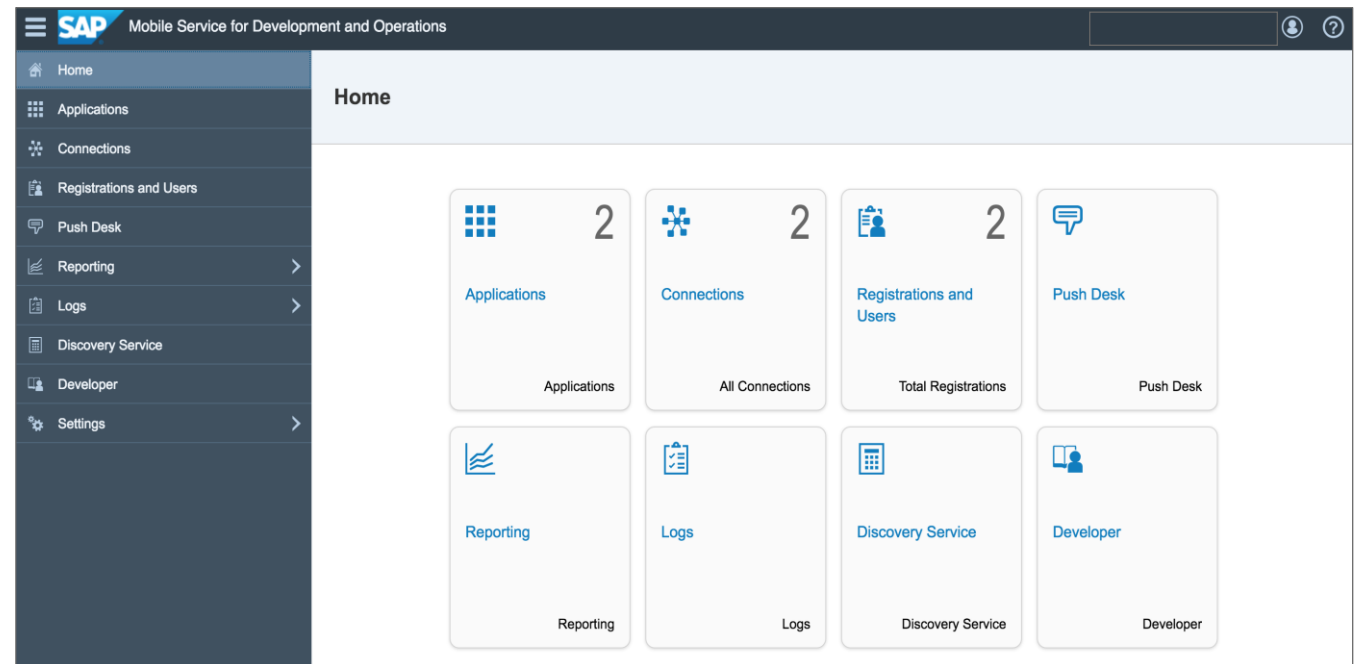


SAP Cloud Platform and Mobile Services

Operations and supportability

Efficient operations for low TCO

- Manage applications, users, registrations, connections, and security
- Remotely configure app logging, and view as well as download logs and traces
- View response-time statistics



SAP Cloud Platform and Mobile Services

Cloud platform services

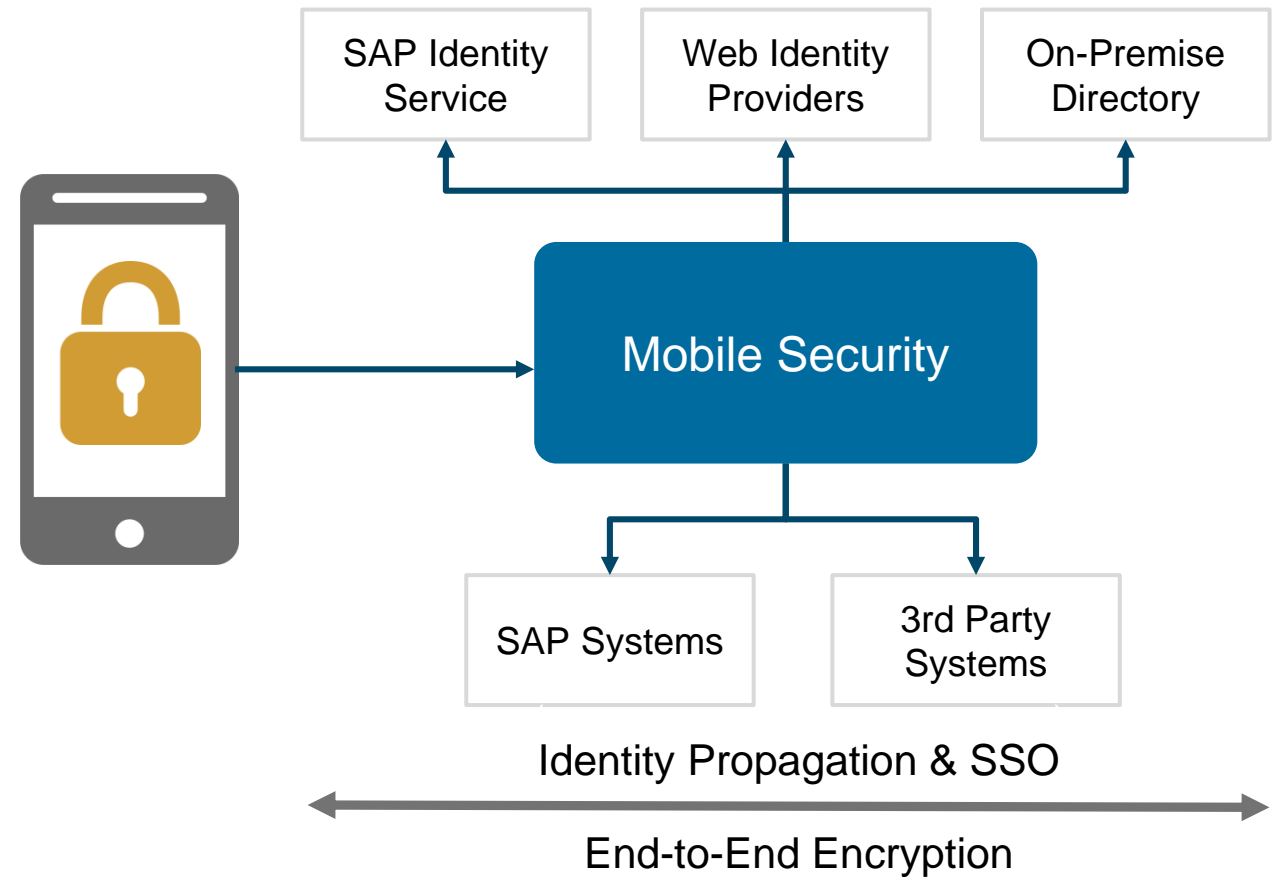


SAP Cloud Platform and Mobile Services

Security

Addressing enterprise security requirements

- Simple integration with cloud and on-premise identity services
 - X.509
 - SAML
 - OAuth2
- Identity propagation to back end
- End-to-end encryption
 - Data at rest
 - Data in motion



SAP Cloud Platform and Mobile Services

Integration

Integrating cloud and on-premise data and services

Internet

Firewall

Corporate Network



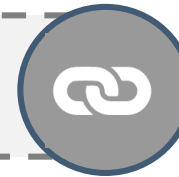
Mobile App

HTTPS



Other Cloud Services

SAP Cloud Connector



HTTPS/RFC

SAP Systems

3rd Party Systems

SAP Cloud Platform and Mobile Services

Key takeaways

- Mobile services are an integral part of the cloud innovation platform from SAP
- A great native UX is key to the app's success
- SAP Cloud Platform SDK for iOS is accelerating native enterprise app development in Swift / Xcode
- Open for developers, customers, and partners



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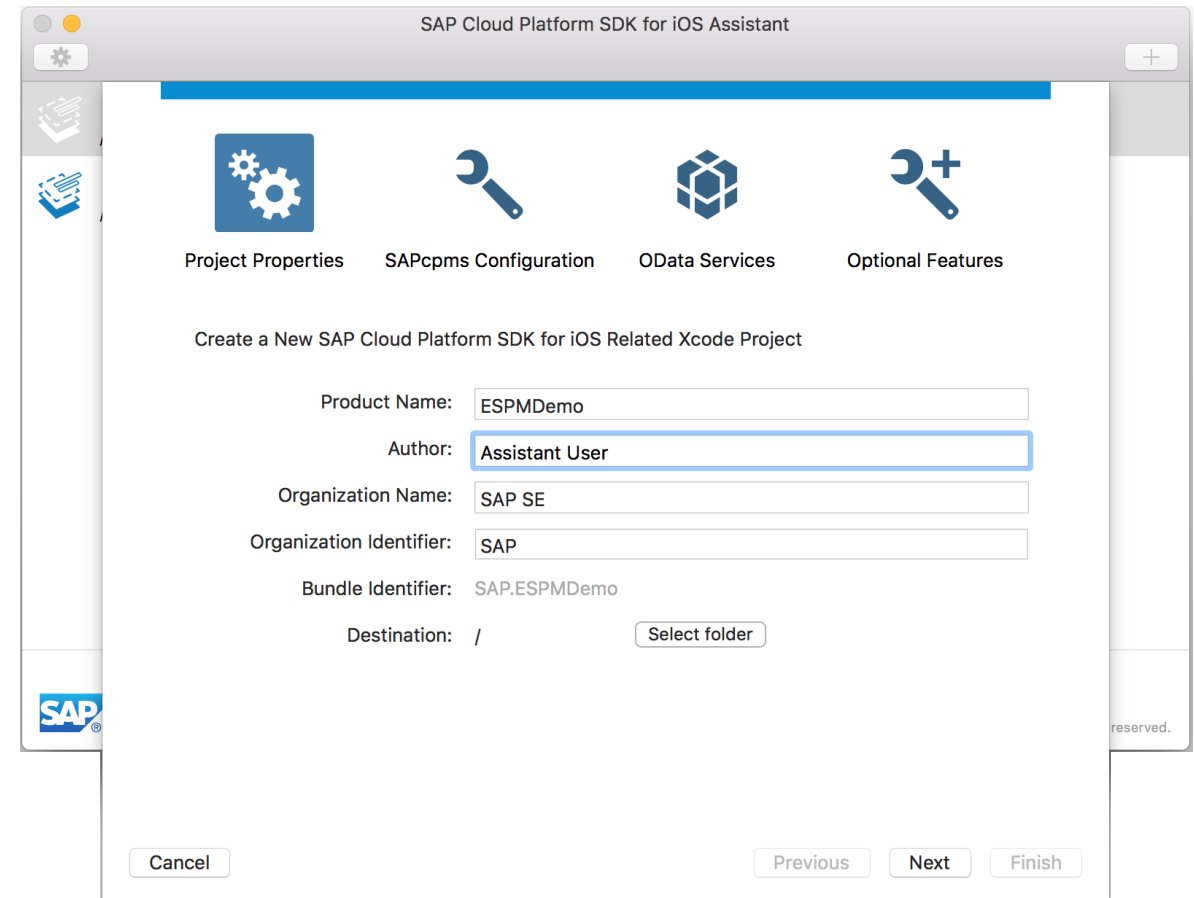
Week 1: Getting Started with SAP Cloud Platform SDK for iOS

Unit 5: The SAP Cloud Platform SDK for iOS Assistant

The SAP Cloud Platform SDK for iOS Assistant

Rapidly generate scaffolding for enterprise apps

- Creates a ready-to-run Xcode project for iPhone / iPad
- Generates object-oriented Swift proxy classes for OData services
- Reduces exposure to low-level APIs
- Generates mobile service configuration
- Includes sample UI



The screenshot shows the 'SAP Cloud Platform SDK for iOS Assistant' window. The 'Project Properties' tab is selected, displaying a form to create a new Xcode project. The form includes fields for Product Name, Author, Organization Name, Organization Identifier, Bundle Identifier, and Destination. The 'Author' field is highlighted with a blue border. The 'Destination' field has a 'Select folder' button next to it. The window also features a sidebar with icons for Project Properties, SAPcpms Configuration, OData Services, and Optional Features. At the bottom, there are 'Cancel', 'Previous', 'Next', and 'Finish' buttons.

SAP Cloud Platform SDK for iOS Assistant

Project Properties SAPcpms Configuration OData Services Optional Features

Create a New SAP Cloud Platform SDK for iOS Related Xcode Project

Product Name: ESPMDemo

Author: Assistant User

Organization Name: SAP SE

Organization Identifier: SAP

Bundle Identifier: SAP.ESPMDemo

Destination: / Select folder

Cancel Previous Next Finish

The SAP Cloud Platform SDK for iOS Assistant

Demo



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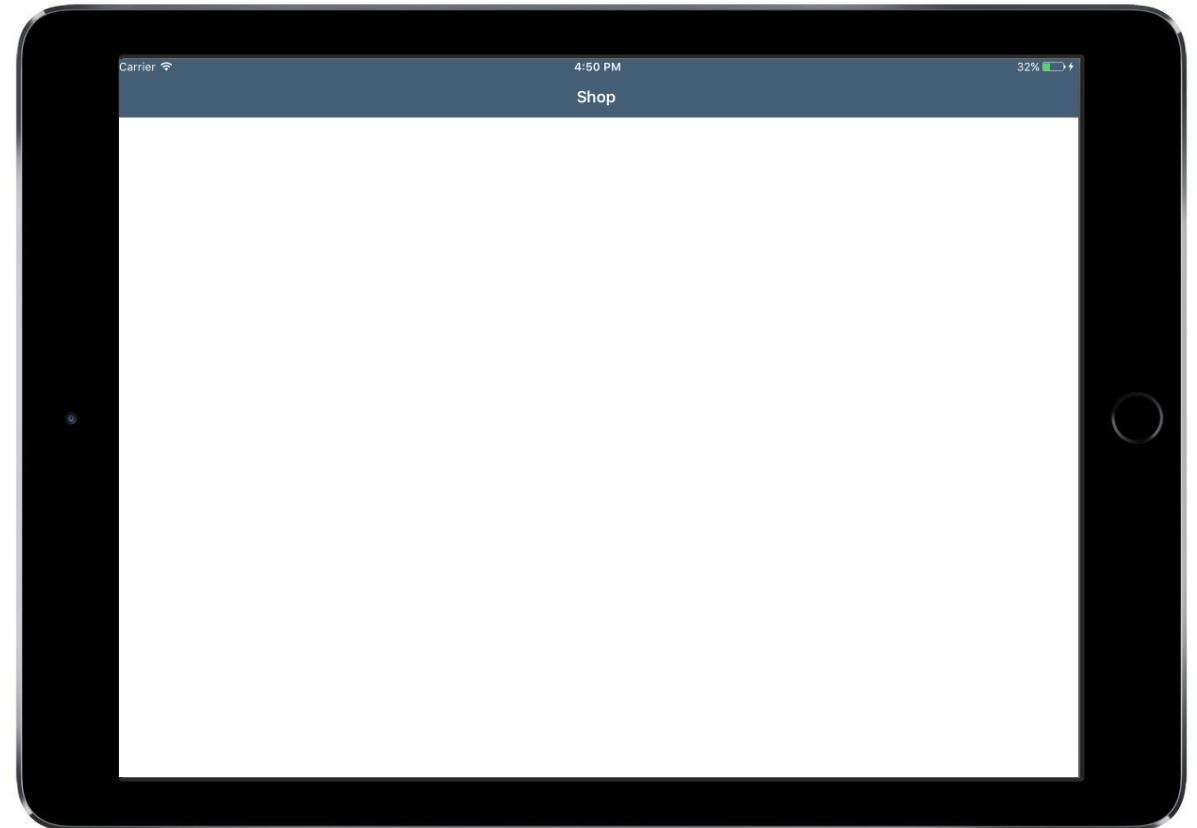
Week 1: Getting Started with SAP Cloud Platform SDK for iOS

Unit 6: Setting Up the Xcode Project

Setting Up the Xcode Project

Goal:

- Prepare the project and understand its structure
- Install the SAP Cloud Platform SDK for iOS for our project



Setting Up the Xcode Project

Hands-on



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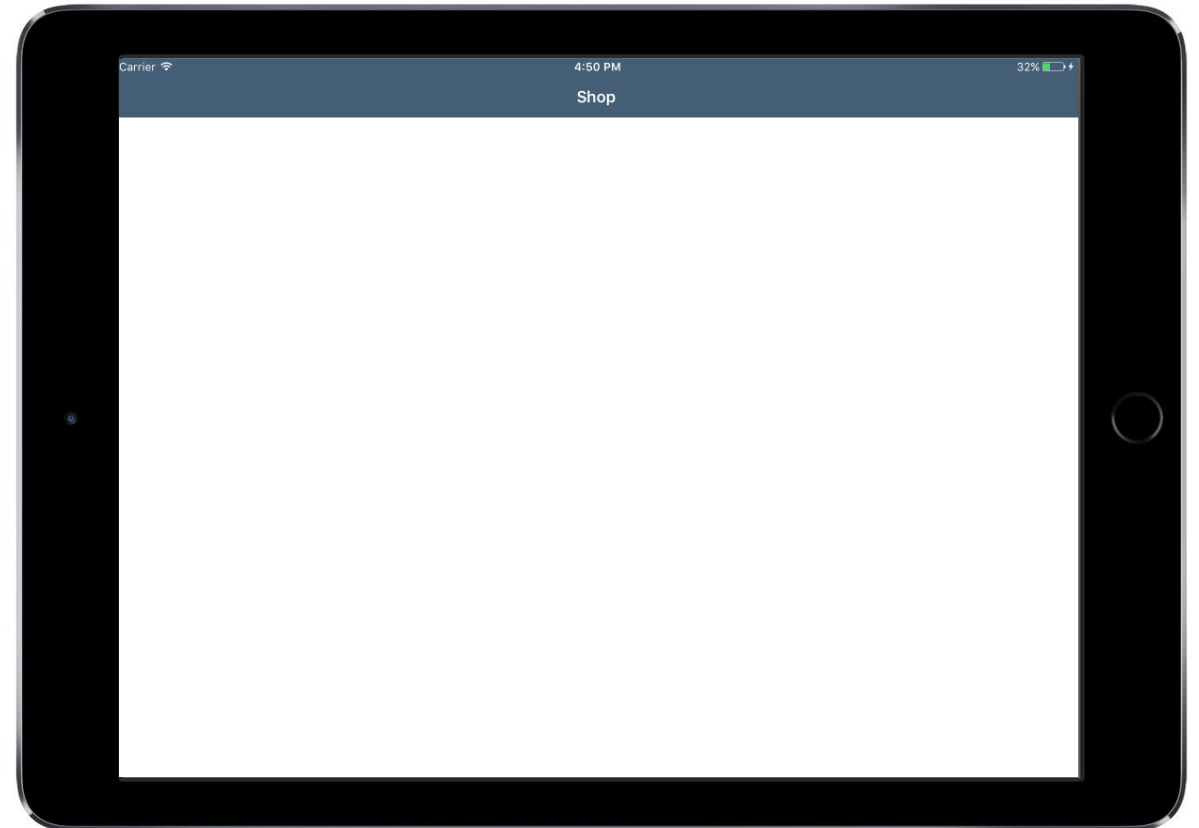
Week 1: Getting Started with SAP Cloud Platform SDK for iOS

Unit 7: Starting with App Development

Starting with App Development

Goal:

- Build a minimal application skeleton that, as a first start, shows an SAP Fiori design navigation bar



Starting with App Development

Hands-on



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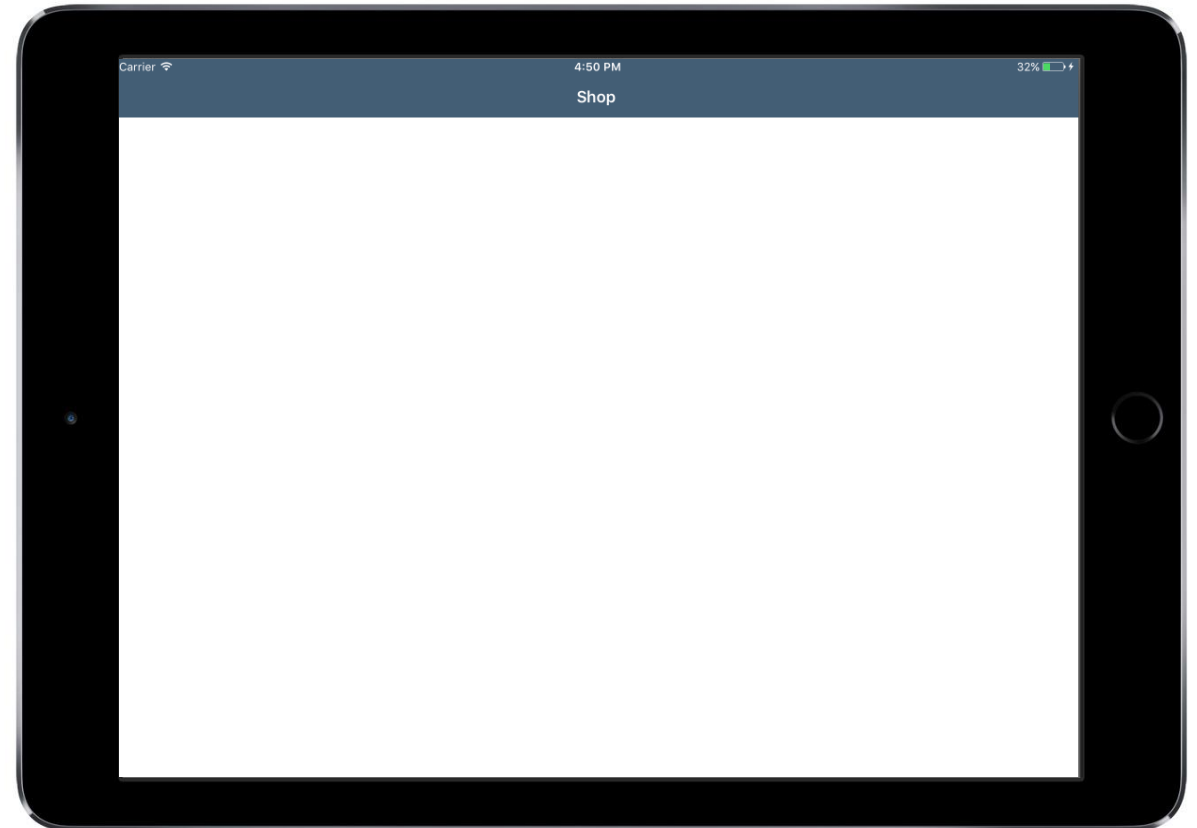
Week 1: Getting Started with SAP Cloud Platform SDK for iOS

Unit 8: Deploying an App on Your Device

Deploying an App on Your Device

Goal:

- Deploy the first sample app on your device



Deploying an App on Your Device

Hands-on



Deploying an App on Your Device

Wrap-up Week 1: hands-on Shopping Cart app development



Wrap-Up – Week 1

Xcode Project Setup

Set Up Xcode Project

Deploy 1st App

Week 2

Back-End Connectivity

Week 3

User Experience

Week 4

Advanced Topics

Deploying an App on Your Device

Demo – Create an Xcode project



Thank you.

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