Apple Device Support
Exam Preparation Guide
## Contents

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>About the Exam</td>
<td>4</td>
</tr>
<tr>
<td>Preparing for the exam</td>
<td>4</td>
</tr>
<tr>
<td>Learning Objectives</td>
<td>5</td>
</tr>
<tr>
<td>Introduction to the Apple Ecosystem</td>
<td>5</td>
</tr>
<tr>
<td>Apple Device Hardware</td>
<td>5</td>
</tr>
<tr>
<td>Setup Assistant</td>
<td>6</td>
</tr>
<tr>
<td>Face ID and Touch ID</td>
<td>6</td>
</tr>
<tr>
<td>FileVault</td>
<td>6</td>
</tr>
<tr>
<td>Apps and Data Migration</td>
<td>7</td>
</tr>
<tr>
<td>Managed Apple ID</td>
<td>7</td>
</tr>
<tr>
<td>Activation Lock</td>
<td>7</td>
</tr>
<tr>
<td>iCloud</td>
<td>7</td>
</tr>
<tr>
<td>Two-Factor Authentication</td>
<td>7</td>
</tr>
<tr>
<td>Troubleshooting Accounts</td>
<td>8</td>
</tr>
<tr>
<td>OS Installation, Updates, and Upgrades</td>
<td>8</td>
</tr>
<tr>
<td>Device Startup</td>
<td>8</td>
</tr>
<tr>
<td>iOS, iPadOS, and macOS System Layout</td>
<td>9</td>
</tr>
<tr>
<td>Apps</td>
<td>9</td>
</tr>
<tr>
<td>App Resources and Containers</td>
<td>10</td>
</tr>
<tr>
<td>Terminal and Scripting</td>
<td>10</td>
</tr>
<tr>
<td>Networking</td>
<td>11</td>
</tr>
<tr>
<td>Sharing Services</td>
<td>11</td>
</tr>
<tr>
<td>Mail and Messaging</td>
<td>12</td>
</tr>
<tr>
<td>Printing</td>
<td>12</td>
</tr>
<tr>
<td>Activity Monitor (macOS)</td>
<td>13</td>
</tr>
<tr>
<td>iOS Sysdiagnose</td>
<td>13</td>
</tr>
<tr>
<td>Console (macOS)</td>
<td>13</td>
</tr>
<tr>
<td>Keychain and Passwords</td>
<td>13</td>
</tr>
</tbody>
</table>
About the Exam

The Apple Device Support exam is for technical professionals who support Apple devices in their organization. This exam verifies that you understand the learning objectives listed in this guide. When you pass the exam, you earn the Apple Certified Support Professional certification. For more information, visit the Apple Training website.

This exam is based on iOS 15, iPadOS 15, and macOS Monterey.

Preparing for the exam

The exam covers the learning objectives listed in this guide, not only the topics in the Apple Device Support course. To pass the exam, you need to study multiple Apple resources and gain hands-on experience supporting Apple devices. Depending on your background, technical expertise, and experience supporting Apple devices, it could take you 30–60 hours to prepare for this exam.

Review the learning objectives in this guide. Identify the topics you need to study, then do the following to prepare for the exam:

• Practice with the sample questions in this guide.
• Complete the Apple Device Support course online. Use the Check Your Understanding questions to reinforce your knowledge of the topics in each article and tutorial.
• Study the resources listed in the Apple Device Support Resources section of the online course.
• Become familiar with macOS, iOS, and iPadOS, then practice the course exercises.
• Gain practical experience in supporting Apple devices in an organization.
Learning Objectives

Introduction to the Apple Ecosystem

- Identify what’s new in macOS.
  - macOS Monterey - New Features
- Identify what’s new in iOS.
  - iOS 15 - Features
- Identify what’s new in iPadOS.
  - iPadOS 15 - Features

Apple Device Hardware

- Recognize which Mac computers support the latest version of macOS.
  - macOS Monterey is compatible with these computers
- Recognize which iPhone devices support the latest version of iOS.
  - iPhone models compatible with iOS 15.5
- Recognize which iPad devices support the latest version of iPadOS.
  - iPad models compatible with iPadOS 15.5
- Describe and use Mac computer hardware components and features.
  - Technical Specifications for Mac notebooks
  - Technical Specifications for Mac desktops
  - Identify the ports on your Mac
- Troubleshoot Mac computer hardware components.
  - If your USB-C power adapter isn’t charging your Mac notebook
- Describe and use iPhone hardware components and features.
  - Technical Specifications for iPhone
  - iPhone User Guide
- Troubleshoot iPhone hardware and accessory components.
  - If your iPhone won’t turn on or is frozen
- Use and describe iPad hardware components and features.
  - Accessories included with iPad
• Technical Specifications for iPad
• iPad User Guide

- Troubleshoot iPad hardware and accessory components.
  - If your iPad won’t turn on or is frozen
  - Set up and use Bluetooth accessories on iPad

**Setup Assistant**

- Recognize how using a customized Setup Assistant can impact the user experience in iOS and iPadOS.
  - Manage Setup Assistant for Apple devices

- Recognize how using a customized Setup Assistant can impact the user experience in macOS.
  - Manage Setup Assistant for Apple devices

**Face ID and Touch ID**

- Set up Touch ID on iPhone, iPad, and Mac.
  - About Touch ID advanced security technology
  - Use Touch ID on iPhone and iPad
  - Use Touch ID on Mac

- Troubleshoot Touch ID on iPhone, iPad, and Mac.
  - If Touch ID isn’t working on your iPhone or iPad
  - If Touch ID isn’t working on your Mac

- Set up Face ID on iPhone and iPad.
  - Use Face ID on your iPhone or iPad Pro

- Troubleshoot Face ID on iPhone and iPad.
  - If Face ID isn’t working on your iPhone or iPad Pro

**FileVault**

- Describe FileVault.
  - How does FileVault encryption work on a Mac?
  - Managing FileVault in macOS
  - Use FileVault to encrypt the startup disk on your Mac

- Enable FileVault.
  - Encrypt Mac data with FileVault
  - If you can’t turn on FileVault on Mac
  - Turn off FileVault encryption on Mac

- Describe personal versus organizational recovery keys.
How to use institutional recovery keys with Intel-based Macs

Apps and Data Migration
- Use Quick Start for iOS and iPadOS to set up new devices.
  - Use Quick Start to transfer data to a new iPhone, iPad, or iPod touch
  - Transfer data from your previous iOS or iPadOS device to your new iPhone, iPad, or iPod touch
- Use Migration Assistant to copy documents, apps, accounts, and settings to a new Mac.
  - Move your content to a new Mac

Managed Apple ID
- Recognize the differences between a personal Apple ID and a Managed Apple ID.
  - Apple Business Manager User Guide
- Recognize user name conflicts in Apple Business Manager.
  - Resolve Apple ID conflicts in Apple Business Manager
- Recognize user name conflicts in Apple School Manager.
  - Resolve Apple ID conflicts in Apple School Manager

Activation Lock
- Recognize and manage Activation Lock features.
  - Activation Lock on Apple devices
  - Activation Lock for iPhone, iPad, and iPod touch
  - Activation Lock for Mac

iCloud
- Troubleshoot iCloud features and recognize MDM settings that conflict with iCloud features.
  - iCloud for Apple platform deployments

Two-Factor Authentication
- Identify the features of two-factor authentication.
  - Two-factor authentication for Apple ID
- Turn on two-factor authentication.
  - Availability of two-factor authentication for Apple ID
  - How to generate a recovery key
Troubleshooting Accounts

- Resolve Apple ID password issues.
  - If you forgot your Apple ID password
- Recognize the differences as to where iOS, iPadOS, and macOS store data.
  - Folders that come with your Mac
  - Optimizing Your App's Data for iCloud Backup
  - Privacy

OS Installation, Updates, and Upgrades

- Install, update, or upgrade macOS.
  - How to reinstall macOS
  - How to upgrade to macOS Monterey
  - Update macOS on Mac
- Install, update, or upgrade iOS and iPadOS.
  - Update iOS on iPhone
- Revive or restore iPhone or iPad using Apple Configurator.
  - Revive and restore Apple devices
  - Revive an iPhone, iPad, or Apple TV in Apple Configurator
- Revive or restore a Mac using Apple Configurator.
  - Revive and restore Apple devices
  - Revive or restore a Mac with Apple silicon using Apple Configurator
  - Revive or restore an Intel-based Mac using Apple Configurator
- Erase all contents and settings in iOS, iPadOS, and macOS.
  - Erase and reinstall macOS

Device Startup

- Use recovery mode to restore iOS and iPadOS.
  - If you can’t update or restore your iPhone or iPod touch
- Use macOS Recovery to resolve issues.
  - Use macOS Recovery on a Mac with Apple silicon
  - Use macOS Recovery on an Intel-based Mac
- Recognize and use the appropriate boot modes for a Mac for a given situation.
  - Boot modes for a Mac with Apple silicon
- Use Startup Security Utility to change startup security policies on a Mac.
iOS, iPadOS, and macOS System Layout

- Recognize and understand differences on Shared iPad.
  - MDM commands for Apple devices
  - Prepare Shared iPad
  - Shared iPad overview
- Troubleshoot and resolve Shared iPad issues.

Apps

- Recognize the behaviors of adopted, preinstalled, App Store, third-party, and managed apps (iOS and iPadOS).
  - Apps included on your Mac
  - Ways to quickly see items in the Finder on Mac
- Recognize the different behaviors of adopted, preinstalled, and third-party apps (macOS).
  - Apps included on your Mac
- Recognize how third-party app resources enhance security.
  - About system extensions and macOS
  - App Store Review Guidelines
  - App security overview
  - Change Extensions preferences on Mac
  - Introduction to Apple platform security
  - Supporting extensions in iOS, iPadOS, and macOS
- Recognize the differences between kernel and system extensions.
  - Kernel extensions in macOS
- Resolve access issues for non-App Store apps during installation in macOS.
  - Safely open apps on your Mac
- Manage app requests for security and privacy settings.
  - Change Privacy preferences on Mac
  - Change Security
  - Privacy General preferences on Mac
- Recognize how a personal Apple ID or Managed Apple ID affect the acquisition of apps from the App store.
  - Apple ID
  - About Managed Apple IDs for business
  - About Managed Apple IDs for education
  - Change your Apple ID
  - Change your Apple ID password
- How to create a new Apple ID
- If you forgot your Apple ID email address or phone number
- Managed Apple ID accounts
- Manage and use your Apple ID
- Overview of Managed Apple IDs for Business (PDF)
- Overview of Managed Apple ID for Education (PDF)
- Sign in with your Apple ID
- Two-factor authentication for Apple ID

- Troubleshoot apps in iOS, iPadOS, and macOS.
  - How to manually update apps on your Apple device
  - If you can't download or update apps on your iPhone or iPad
  - If you can't connect to the App Store, iTunes Store, or other Apple services
  - If an app on your iPhone or iPad stops responding, closes unexpectedly, or won't open
  - If an app freezes or quits unexpectedly on Mac
  - Manage the apps that you use with Sign in with Apple

**App Resources and Containers**

- Identify app resources and containers in devices.
  - App Groups Entitlement
  - CloudKit - iCloud
  - Enabling CloudKit in Your App

- Manage documents.
  - Access iCloud Drive files from your iPhone and other devices
  - Access and manage your files in iCloud Drive
  - Add your Desktop and Documents files to iCloud Drive
  - Find a document in Pages on iPad
  - Organize your files in the Finder on Mac
  - Set up iCloud Drive on all your devices
  - Use the Files app on your iPhone, iPad, or iPod touch
  - Use iCloud Drive to store documents on your Mac, iPhone, and iPad
  - Work with folders and files in iCloud Drive

- Back up and restore device configuration and related data using Apple Configurator.
  - Back up and restore iPhone and iPad devices in Apple Configurator

**Terminal and Scripting**

- Use defaults command to modify app behavior.
• Edit property lists in Terminal on Mac

• Navigate between containers and resources in Terminal.
  o Terminal User Guide

Networking

• Manage network settings using locations and service order.
  o Change network settings on Mac
  o How to use network locations on your Mac
  o Mobile Device Management Settings for IT
  o Recommended settings for Wi-Fi routers and access points
  o Set advanced network settings in iOS Setup Assistant

• Recognize DHCP and DNS issues.
  o Change DNS settings in Network preferences on Mac
  o Renew your IP address from the DHCP server on Mac
  o Resolve IP address conflicts on Mac
  o Use DHCP or a manual IP address on Mac

• Troubleshoot DHCP and DNS issues.

• Diagnose potential Wi-Fi issues.
  o If your Mac isn't connecting to the internet over Wi-Fi
  o Use Wireless Diagnostics on your Mac

• Resolve VPN configuration issues manually.
  o Change VPN settings in Network preferences on Mac
  o Check VPN (Virtual Private Network) and third-party software to help resolve network connectivity issues
  o Set up a VPN connection on Mac

Sharing Services

• Describe host sharing.

• Use and manage Sharing preferences.
  o Change iCloud preferences for your Apple ID on Mac
  o Change Media Sharing preferences on Mac
  o Set up file sharing on Mac
  o Set up Family Sharing
  o Set up Family Sharing on Mac
  o Set up media sharing on Mac
  o Share the screen of another Mac
• Stream content with Home Sharing on Apple TV
  • Turn Mac screen sharing on or off
  • Use Home Sharing to share media from a computer to other devices
• Troubleshoot host sharing services.
  • Change Firewall preferences on Mac
• Use and manage AirDrop.
  • How to use AirDrop on your iPhone, iPad, or iPod touch
  • Use AirDrop on iPhone to send items to nearby devices

Mail and Messaging
• Configure Mail settings.
  • Add an email account to your iPhone, iPad, or iPod touch
  • Add email accounts in Mail on Mac
  • Change preferences in Mail on Mac
• Troubleshoot Mail and Messages.
  • If iCloud Mail isn't working
  • If you can't receive emails in Mail on Mac
  • If you can't send email on your iPhone, iPad, or iPod touch
  • If you can't send or receive email on your Mac
  • Troubleshoot email problems in Mail on Mac

Printing
• Manage printing.
  • Add a printer to your Wi-Fi network in AirPort Utility on Mac
  • Change Printers & Scanners preferences on Mac
  • Check on a printer or print job using the Dock on Mac
  • Choose your default printer on Mac
  • Connect an AirPrint printer to a Wi-Fi network
  • Print quickly using a pool of network printers from your Mac
  • Remove a printer from your printer list when you don't use it on Mac
  • Share your printer on Mac
  • Update your printer software if your printer has a printing problem on Mac
  • Use your Mac to print to a printer connected to a Windows computer
• Troubleshoot printing issues.
  • Check if a printer is working or has a problem on Mac
  • If printer software isn't available on Mac
Solve printing problems on Mac

Activity Monitor (macOS)
• Use Activity Monitor to identify and resolve issues.
  ◦ View cache activity in Activity Monitor on Mac
  ◦ What is content caching on Mac?
• Resolve app preference issues by quitting cfprefsd.
  ◦ Refer to the cfprefsd man page in Terminal on Mac.

iOS Sysdiagnose
• Use iOS sysdiagnose to capture detailed logs.

Console (macOS)
• Obtain basic macOS information using Console.
  ◦ View activities in Console on Mac
  ◦ View log messages in Console on Mac
  ◦ View reports in Console on Mac
• Narrow a search using Console.
  ◦ Find log messages and activities in Console on Mac

Keychain and Passwords
• Manage a macOS Keychain.
  ◦ Keychain Access User Guide for Mac
  ◦ What is Keychain Access on Mac?
• Use Password preferences.

Firewall
• Explain protecting your Mac with a firewall.
  ◦ Block connections to your Mac with a firewall
• Enable and disable firewall in macOS Security & Privacy settings.
  ◦ Block connections to your Mac with a firewall
  ◦ Change Firewall preferences on Mac

Configuration Profiles
• Describe configuration profiles.
Plan your configuration profiles for Apple devices

- Locate configuration profiles on a client device.
  - Add or remove configuration profiles in Apple Configurator
  - Configuration Profile Reference (PDF)
  - Configuration profile enforcement
  - Create and edit configuration profiles in Apple Configurator
  - Install or remove configuration profiles on iPhone
  - Install or remove configuration profiles on iPad
  - Send configuration profiles in Profile Manager
  - Use configuration profiles to standardize settings on Mac computers
  - Work with configuration profiles in macOS Server
Sample Questions

Study the following sample questions to prepare for the exam. Try to answer each question, then use the answer key to check your answers.

Question 1
Which type of account can turn on FileVault on a Mac?
A. Sharing Only
B. Administrator
C. Standard
D. Network

Question 2
Which macOS feature lets multiple users log in at the same time and access some of the same resources?
A. Touch ID
B. Launchpad
C. Mission Control
D. Fast user switching

Question 3
What happens when you restore a Mac with Apple Configurator 2?
A. It updates the firmware and erases recoveryOS and macOS on your internal storage.
B. It recovers data from a Time Machine snapshot on the internal storage.
C. It restores the system state from before a corrupted battery drain.
D. It forces the Mac to perform any pending updates.

Question 4
Which read-only folders does System Integrity Protection protect by preventing malicious software from modifying macOS files and folders?
A. /System, /usr, /bin, /sbin
B. /Users/Shared, ~/Public
C. ~/Downloads, ~/Library
D. /private/var, /private/etc
Question 5
Where does content you download from the internet go to by default?

A. Desktop
B. Documents
C. Downloads
D. Safari

Question 6
Scenario
An iOS app is accessing shared containers with other apps from the same developer.

Which identifier format would these apps use to communicate?

A. name.<Group>
B. app_name<group.>
C. <group name>.group
D. group.<group name>

Question 7
Scenario
A macOS app is accessing shared containers with other apps from the same developer.

Which identifier format would these apps use to communicate?

A. <team identifier>.<group name>
B. <group name>.<team identifier>
C. <identifier.app name>
D. <app_name.identifier>
Question 8
Select two responses:

What are two resources that you can use to automatically manage secrets and saved passwords on a Mac?

A. Secure Notes
B. Access Control
C. Keychain Access
D. Passwords preferences
E. Security & Privacy preferences

Question 9
Select three responses.

Which groups are eligible for an AppleCare Professional Support solution?

A. Help Desks
B. Enterprise
C. IT Departments
D. Support Technicians
E. iOS Support Technicians
F. Mac Support Technicians
Answer Key

- Question 1: B
- Question 2: D
- Question 3: A
- Question 4: A
- Question 5: C
- Question 6: D
- Question 7: A
- Question 8: C, D
- Question 9: A, B, C
Exam details

- The exam name is Apple Device Support Exam (9L0-3021-ENU).
- The exam contains 105 scored technical questions, and you have 120 minutes to complete them.
- The minimum passing score is 80 percent. Scores aren’t rounded.
- The exam uses multiple-choice, multiple-select, and matching questions.
- You may not access any resources or references during the exam.

Taking the exam

You take the Apple Device Support exam online through the Pearson OnVUE system. Schedule your exam session in advance, and plan to complete the exam in one sitting. You need a private space and a current, government-issued identification card to take the exam.

To learn more about the Pearson OnVUE online proctoring experience, watch this brief video.

To schedule and take the exam, complete these steps:

1. Sign in to ACRS using your Apple ID and password.
2. Click Credentials. Then click Apple Device Support Exam to start the exam registration process.
3. Update the Contact Details for the Testing and Certification section. Answer the additional information questions. If you’re requesting any special accommodations to take the exam, complete the relevant fields. Then click the Submit button.
4. On the notifications page, look for this text: “You may continue to the exam process for Apple Device Support Exam.” Click Continue at Pearson VUE.
5. Follow the instructions to schedule and pay for your exam.

On the day of your scheduled exam, complete these steps:

1. 30 minutes before your scheduled exam time, go to ACRS and sign in with your Apple ID and password.
2. Click the Apple Device Support Exam on the home page.
3. Click Begin Exam, then follow the instructions.

After you complete the exam, Pearson emails you your score. If you don’t pass the exam on the first try, you can purchase another exam and retake it after 14 days. You’re allowed four attempts to pass the exam.
About the Certification

The Apple Certified Support Professional certification differentiates you as a skilled professional, gives you a competitive edge in an evolving job market, and associates you with the power of the Apple brand.

When you pass the exam, Credly emails you the instructions to claim your digital badge.

Digital badges are typically valid for the year in which you earn them, but specific expiration dates vary. You keep your badge current by taking the recertification exam when it’s released and before the badge expiration date. Visit training.apple.com and log in to the Apple Certification Records System (ACRS) periodically to ensure that you’re aware as soon as a recertification exam is available.