Lab - Investigate BIOS or UEFI Settings

Introduction

In this lab, you will boot the computer, explore the firmware setup utility program, and change the boot order sequence.

Recommended Equipment

- Computer with or without operating system
- Motherboard manual

Instructions

Part 1: Enter BIOS or UEFI.

Power on the computer.

a. Plug the power supply cable into an AC wall outlet.

b. If there is a power switch on the power supply, set the switch to "1" or "on".

c. Turn on the computer with the power button on the front panel.

Note: If the computer beeps more than once, or if the power does not come on, notify your instructor.

Enter the firmware setup program.

During POST, press the firmware setup key or key combination. The firmware setup utility program screen will appear.

Questions:

What is the key or combination of keys used to enter the firmware setup utility program?

-On my laptop/macbook it's "Command + R" for UEFI settings

Who manufactures the BIOS or UEFI system for your computer?

- Apple Inc.

What is the BIOS or UEFI version?

-MBA71.0166.B19

Part 2: Explore the Settings.

List the main menu options.

Question:

List the main menu options and describe what is monitored in each menu?

-These are some of the options available on my Laptop:

Startup Manager: Choose boot device (internal SSD, USB, etc.)
Startup Security Utility: Set Secure Boot and external boot permissions S

ystem Report: Shows details about CPU, Memory, Storage, Security, etc. Disk Utility (in Recovery): Manage storage, format disks, repair drives

Find the security settings.

Navigate through each screen to find the security settings.

Question:

What security settings and features are available?

-Secure Boot Options (Full, Medium, or Off)

External Boot: Allow or prevent booting from USB or external drives

Optional: Firmware password

Find the CPU settings.

Navigate through each screen to find the CPU settings.

Questions:

What is the CPU speed?

-3.2 GHz

What other information is listed for the CPU?

-My macbook model is "MacBook Air 13"

Find the RAM settings.

Navigate through each screen to find the RAM settings.

Questions:

What is the RAM speed?

-3733 MHz

What other information is listed for the RAM?

-Total memory: 5GB

Configuration: (single chip, integrated)

Find the hard drive settings.

Navigate through each screen to find the hard drive settings.

Questions:

What information is listed for the hard drive?

-Drive Type: Apple SSD

Find the boot order sequence.

Navigate through each screen to find the boot order sequence.

Questions:

What is the first boot device in the boot order sequence?

-MacOS doesn't support everything like other PCs but here's what's covered: Default: internal disk

On startup, press Option to choose a different device

Number of possible devices: all recognized drives

How many additional devices can be assigned in the boot order sequence?

Type your answers here.

Set the device boot order settings.

a. Ensure that the first boot order device is the optical drive.

b. Ensure that the second boot order device is the hard disk drive.

Questions:

Why would you change the first boot device to the optical drive?

-It doesn't support this action so it's manually selected

What happens when the computer boots and the optical drive does not contain bootable media?

-MacOS skips it and boots from the next available device

Find the power management setup or ACPI screen.

Navigate through each screen to find the power management setup screen, or ACPI screen.

Question:

What power management settings are available?

-On MacOS it is:

macOS to Settings
Sleep options
Battery Health Management

Find the PnP settings.

Navigate through each screen to find the PnP settings.

Question:

What PnP settings are available?

-MacOS has no manual PnP menu. Devices connect automatically

Find the splash screen settings.

Navigate through each screen to find the splash screen settings.

Question:

What splash screen settings are available?

-Macs show a fixed Apple logo upon startup

Save and exit the setup utility program.

Save the new BIOS/UEFI settings and exit the setup utility program. The computer should restart automatically.

Note: An error message stating that an OS cannot be found (or a similar error) will appear on the screen after the computer boots. An operating system must now be installed to prevent this error. It is safe to turn off the computer at this time.

This lab is complete. Please have the instructor verify your work.

NOTE: I apologize for the lack of accurate answers or information Mr. Quejado. My MacBook laptop is the only available device I have as of now for my tasks like this one, but I'll make up a way to improve my answers on the next assignment given. I sincerely apologize po