# LAB: Advanced Functions Review

In this lab, you’ll practice many of the techniques that you learned in the preceding Nuggets. “LAB F: Advanced Functions Review,” covers the solutions to these challenges. See how many you can complete before watching the Nugget.

Create a new module called OSTools. In it, create two advanced functions:

1. Get-SystemDetails queries the following WMI or CIM classes, and returns the information indicated as a unified output object:
   1. From Win32\_OperatingSystem:
      1. Version (return as OSVersion)
      2. ServicePackMajorVersion (return as SPVersion)
      3. BuildNumber (return as OSBuild)
   2. From Win32\_ComputerSystem:
      1. Manufacturer
      2. Model
      3. \_\_SERVER (return as ComputerName)
   3. From Win32\_BIOS:
      1. SerialNumber (return as BIOSSerial)
2. Get-DiskDetails queries Win32\_LogicalDisk using WMI or CIM, including only local fixed disks, and returns:
   1. The computer name (return as ComputerName)
   2. DeviceID (return as Drive)
   3. FreeSpace (return in GB with two decimal places)
   4. Size (return in GB with two decimal places)
   5. FreePercent (return as a whole number with no % sign)

Each of these functions should accept one or more computer names on a   
–ComputerName parameter. That parameter should accept pipeline input both ByValue and ByPropertyName. The parameter should be mandatory.

The functions should implement full comment-based help.

Now you’re ready to watch the lab review Nugget!