Advanced Scripting   
Types

Last Updated: 10/6/2021 7:26 PM Version 1  
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# Instructions

Save a copy of this document. Answer all questions directly in this document. You will save and upload this completed document as your homework submission.

# Overview

This exercise will give you experience working with types in PowerShell. Since you are getting well-seasoned in PowerShell, I’ll just ask questions rather than tell you each command. For each question, record the PowerShell command(s) you used to answer the question. Have fun.

# Requirements

PowerShell

# Task 1—Explore types

## Steps

1. Given the following PowerShell expressions   
   5kb\*1gb
   1. What data type is returned?Double
      1. PowerShell Command(s) Put the equation into a variable and did $memory.GetType()
   2. What is the minimum value of the returned data type? -1.79769313486232E+308
      1. PowerShell Command(s) [Double]::MinValue
   3. What is the maximum value of the returned data type? 1.79769313486232E+308
      1. PowerShell Command(s) [Double]::MaxValue
2. How many static members does the [int] type have? 6
   1. PowerShell Command(s) [int] | Get-Member -Static | Measure-Object
3. What is the FullName of the [long] type? System.RuntimeType
   1. PowerShell Command(s) [long].GetType().fullname
4. Does the [long] type allow negative numbers? Yes
   1. PowerShell Command(s) [long]::MinValue
5. How many members does the string object support (both static and instance)? 16 static and 137 instance
   1. PowerShell Command(s) [string] | Get-Member | Measure-Object & [string | Get-Member | Measure-Object -static
6. Write a PowerShell command to remove the leading and trailing spaces from the string ' I Love PowerShell '
   1. PowerShell Command(s) $love=’ I love PowerShell ‘ and then I did $love.trim()
7. How many types have the word cryptography in them on your system? 490
   1. PowerShell Command(s) [System.AppDomain]::CurrentDomain.GetAssemblies().GetTypes()|Select-String cryptography|Measure-Object
8. Is [string] a reference or value type? Reference
   1. PowerShell Command(s) [string] -is [ValueType]
9. What type is returned from the hex value DEADBEEF? ByteCollection
   1. PowerShell Command(s) $hex=’DEADBEEF’ | Format-Hex then I did $hex=GetType()
10. What is the numeric value for the hex value DEADBEEF? 44 45 41 44 42 45 45 46
    1. PowerShell Command(s) ‘DEADBEEF’|Format-Hex
11. What is the type retuned from the command get-process Object[]
    1. PowerShell Command(s) $process=Get-Process then I did $process.GetType()

# Task 2—Concepts

1. What is the purpose of a here-string? It is used to contain large chunks of text inside of a script with lots of different quotes, variables, and datatypes.
2. Describe the difference in behavior of single quoted strings vs double quoted string, include pros and cons. Single quoted strings are unique because whatever you type will be printed exactly as you typed it. So if you do math or pass in variables, they won’t necessarily work but they will print how you typed them. This could be good if you want exact printing, but it can’t do much other than that. Double quoted strings are good because whatever math or variables you pass into them will be executed. This is good as it is smarter and more complex but maybe you don’t always want your string to do math or variables. It really depends on what you are doing.
3. Describe the difference between a reference type and a value type. Reference type references to their data or objects while value types actually contain the data rather than pointing to the data elsewhere.

# Deliverable

Upload this document with completed answers to i-learn.