

Objects, Properties and Methods

Lab Answers

In this lecture we're going to review the **questions** and answers from the Objects, Properties and Methods section.

1. Q: What are objects?

- **Answer:**

Objects are things that we **can interact with**. For example: Like a boat or a car.

Technically an object is the programmatic representation of anything. For example, an object is a cmdlet like get-eventlog or get-service .

2. Q: What two components do objects have?

- **Answer:**

Properties and Methods

Properties describe features

Methods describe actions or things that we can **do** with the object.

3. Q: In our car example describe one of the properties or features of the car

- **Answer:**

Headlights

4. Q: In our car example describe one of methods or actions (Things that you can do with one of the properties or features of the car.

- **Answer:**

Turn on the headlights

5. Q: How can you display the property or methods of a command?

- **Answer:**

By using the get-member command

6. Q: Using methods, how would you kill **an instance** of Internet Explorer?

- **Answer:**

First open Internet Explorer and minimize to the taskbar.

Now we want to determine first is Internet Explorer a service or a process

Type get-service -name (now scroll down though the list) List is in alphabetical order)

We see that IE is not in the list.

- Type get-process -name (scroll down through the list) and we see iexplore
- So now we know that iexplore is a process

Now we'll use get-member to find our method

Type get-process | gm press return

Scroll up until you see a method, that could **kill a process. And we see we have kill.**

I'll go ahead and type the command then explain what I did.

Type (get-process iexplore).kill()

- If you want to use the method of an object. Use GM and choose the method.
- In this case we surrounded the command (get-process) and the **process called iexplore** in parenthesis
- then used a dot **then the method (which was kill)** followed by open and closed parenthesis

Go ahead and press return, and we'll see if IE closes

And we see that command worked.

7. Q: Using methods of an object, how would you copy the contents of a file called servers.csv from, a folder called **copyA** to a folder called **copyB**.

- **Answer:** First open windows explorer and create the two folders called **copyA** and **copyB. Close explorer**
- Open notepad and type the following text
DNS Servers (return)
DNS1
DNS2
Domain Controllers
AD1
AD2
AD3
- Click file save as, save as type, click the down arrow and click **all files**.
Now for a filename type **servers.csv** and save this file to the copyA folder.
Close notepad, go back out to explorer and double check to be sure our file is there. and go to c:\copya and there's our file.

- So, the question was, we want to copy the contents of the servers.csv file from the copyA folder to the copyB folder.

So, the first question you should have, is how are you going to figure out which commands to use? I'm glad you asked

- When you began the lecture there was an additional resource that you should have downloaded called Technet PowerShell Commands and aliases.
- Go ahead and open this file. Notice there are a whole list of cmdlets with descriptions and aliases.
Let's Scroll down and find a command in the list that we think that will work.
So, in this case we'll use get-childitem, and the description says that the command gets the files and folders in a file system drive.

- So now we want to take a look at the methods from get-childitem.
- Type get-childitem | gm now press return
- Now, let's go ahead and scroll up until we see the method called copyto

I'll go ahead and type out the command, then I'll explain what I did.

- **Type (get-childitem -Path C:\copyA\servers.csv).copyto("C:\copyB\servers.csv")**

Once the command is typed out it's a whole lot easier to understand what the command will accomplish. We just need to learn the dot notation.

- To use a **method** of an object, **Place the cmdlet name and the argument in parenthesis, then type a dot (.), then the method name, and a set of parentheses "()"**.

The parentheses are **required** for every **method call**, even when there are no arguments.

- **TIP – About Quoting Rules**

Notice the double quotes – Quotation marks are used to specify a literal string. Which in this case is ("C:\copyB\servers.csv")

Also, you can substitute single quotes and the command still runs.

If you want to know more about the quoting rules

Type help about_quoting_rules

Go ahead and press return, and as you can see the file been copied.

So to double check that, let's go to windows explorer and to copyB, and there's our servers.csv. So, we can see that the command did run.