Relativity Dev VM Chef Script Documentation

[Friday, August 25, 2017]

Table of Contents

1 Requirements

- CPU cores: 4 cores
- RAM: 8GB
- Storage: 120GB
- Licenses
    - Windows Server 2012 R2
    - Relativity

2 Setup your Workstation

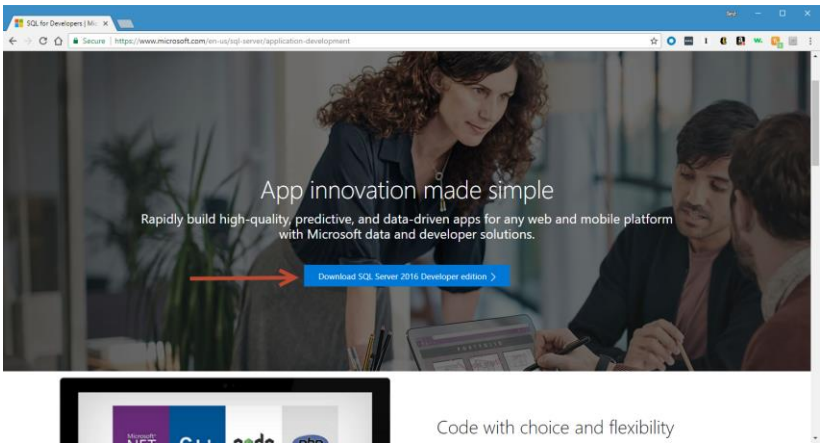
2.1 Login

- Use a Windows Administrator account to login into your workstation

2.2 Downloads

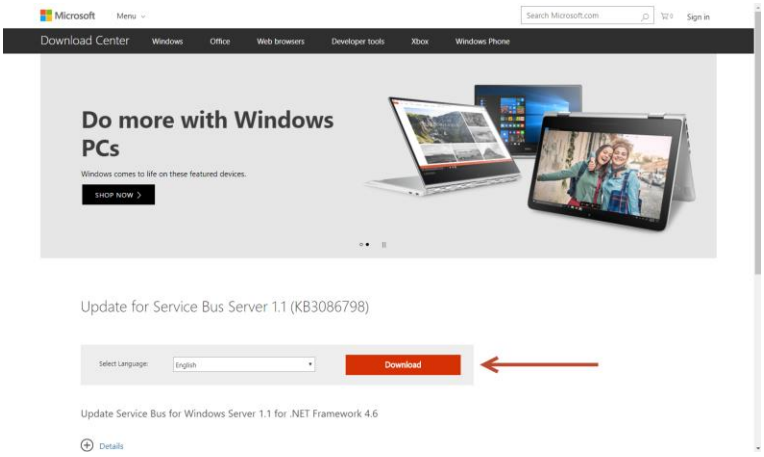
2.2.1 SQL Server 2016 Developer Edition

- You can download it at this link - https://www.microsoft.com/en-us/sql-server/application-development



2.2.2 Service Bus 1.1 Defect Windows Update

- You can download it at this link - https://www.microsoft.com/en-us/download/details.aspx?id=49496



2.2.3 Relativity Installer

- You can download the specific Relativity version from Salesforce.

2.2.4 Invariant Installer

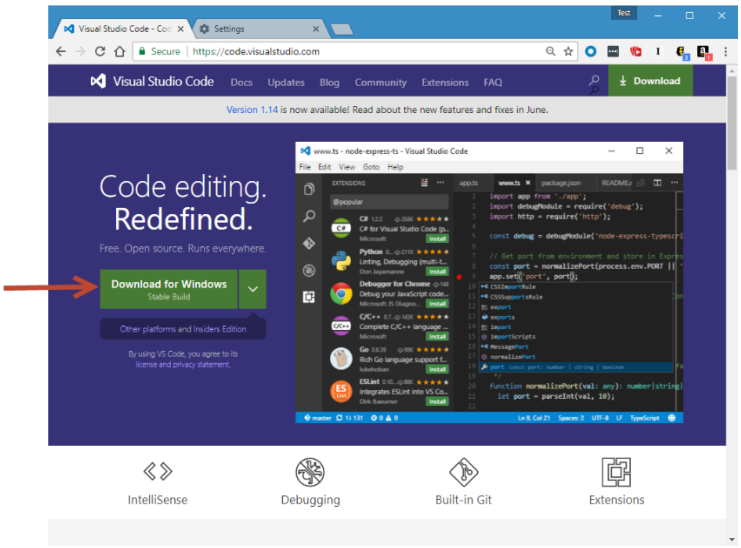
- You can download the corresponding Invariant version for the specific Relativity version from Salesforce.

2.2.5 [Fix] Windows Base Machine for Chef Test Kitchen

- Instructions will be provided later

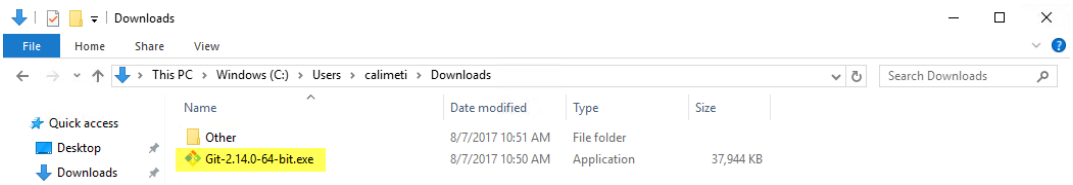
2.3 Install Visual Studio Code text editor

- Download and Install Visual Studio Code from this link Visual Studio Code



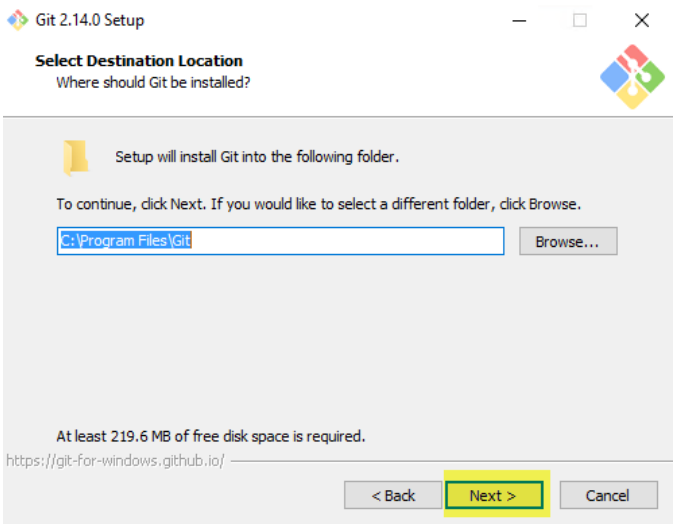
2.4 Install GIT

- Download Git from this link - https://git-scm.com/download/win
- Once downloaded double click on the Git installer file.

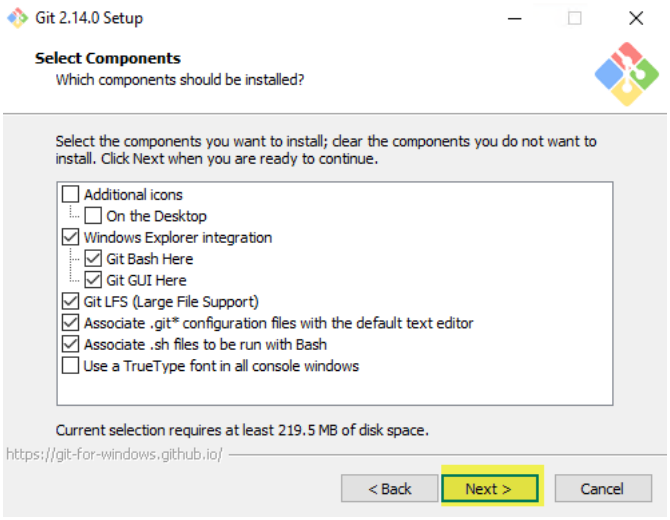


- Click **Next**

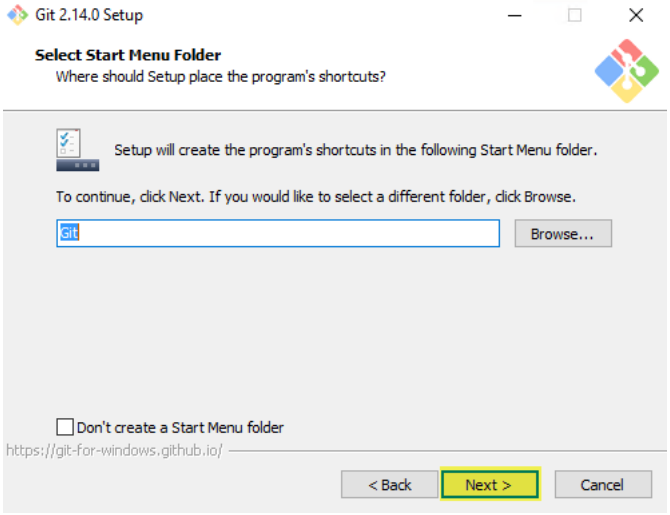
- Choose **default values** and click **Next**.


Git 2.14.0 Setup
Select Destination Location
Where should Git be installed?
Setup will install Git into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\Git
Browse...
At least 219.6 MB of free disk space is required.
https://git-for-windows.github.io/
< Back
Next >
Cancel

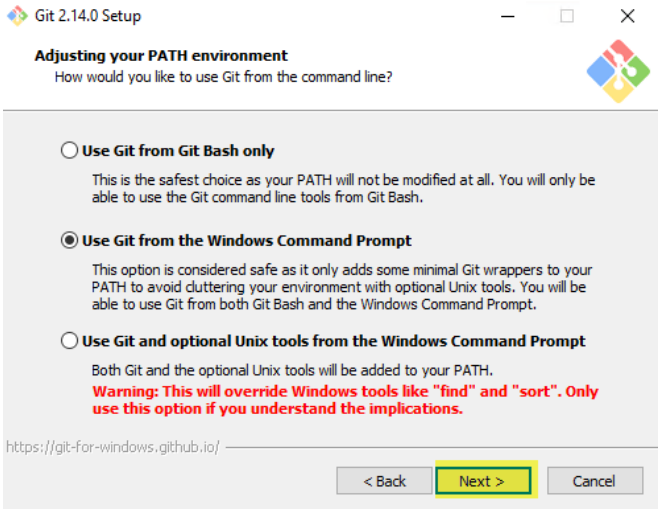
- Choose **default values** and click **Next**.



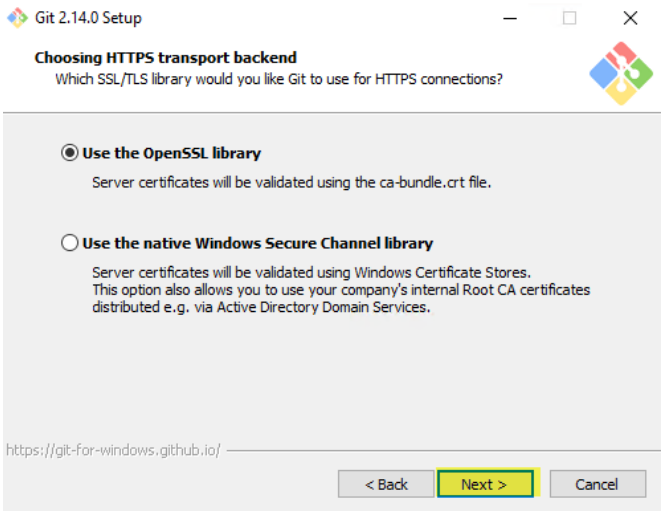
- Choose **default values** and click **Next**.



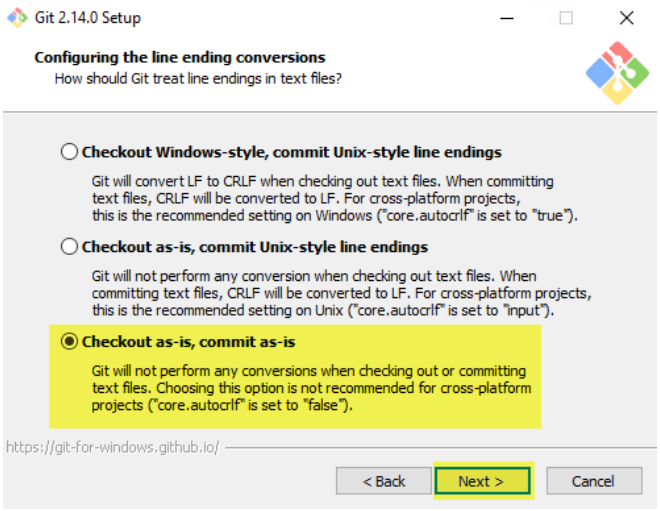
- Choose **default values** and click **Next**.



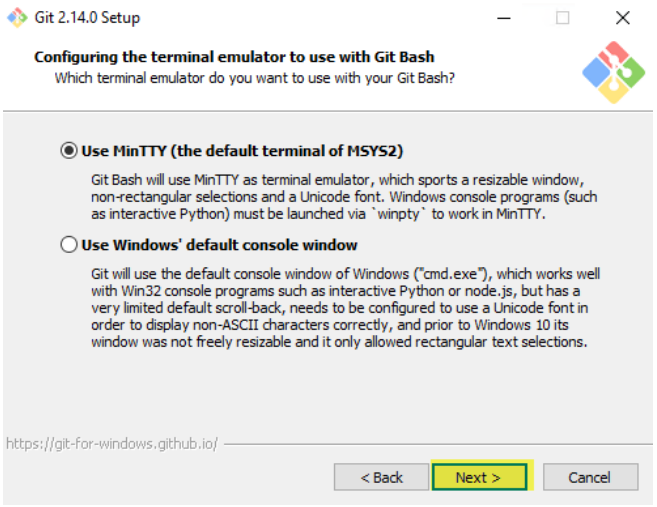
- Choose **default values** and click **Next**.



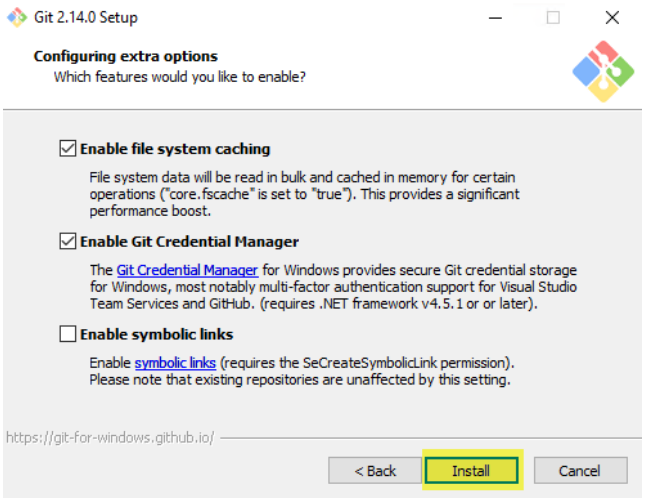
- Change to **checkout as-is, commit as-is** and click Next.



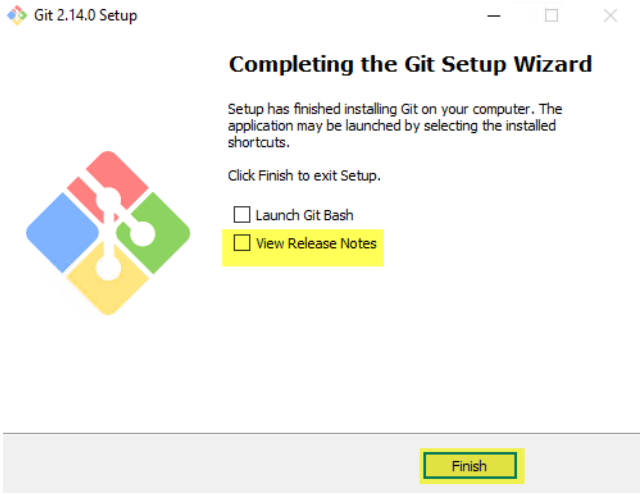
- Choose **default values** and click **Next**.



- Choose **default values** and click **Install**.



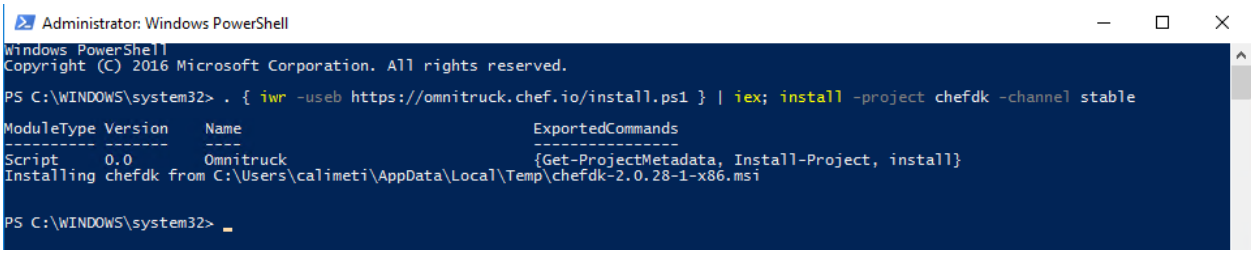
- Uncheck **View Release Notes** and click **Finish**.



2.5 Install Chef Development Kit

- Run the following command in PowerShell to install Chef DK.

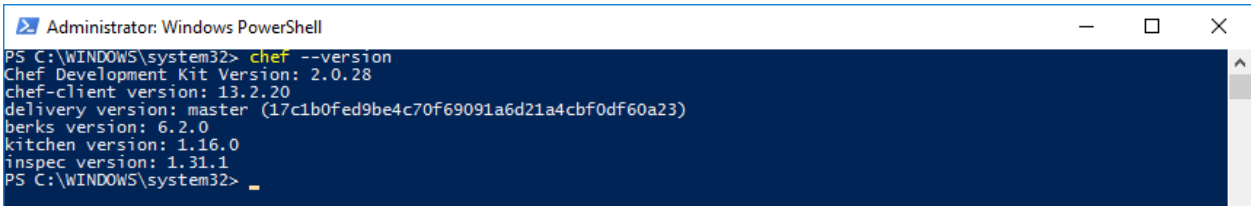
```
. { iwr -useb https://omnitruck.chef.io/install.ps1 } | iex; install -project chefdk -channel stable
```



- Once installed, a **Chef Development Kit** icon will be created on your desktop. Double click to open it.

- You can verify Chef DK installation by running the following command in PowerShell

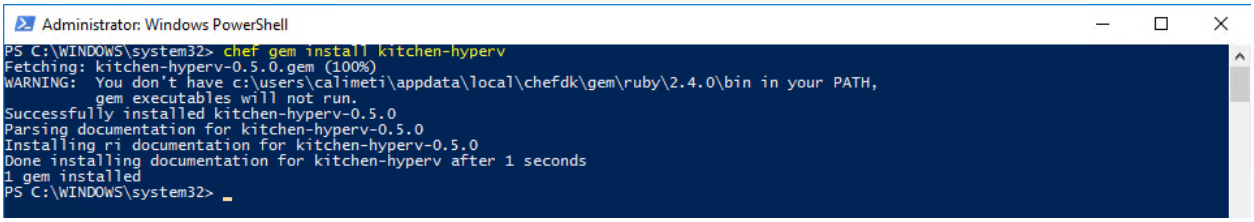
```
chef --version
```



2.6 Install Chef Kitchen Hyper-V driver

- Run the following command in PowerShell window.

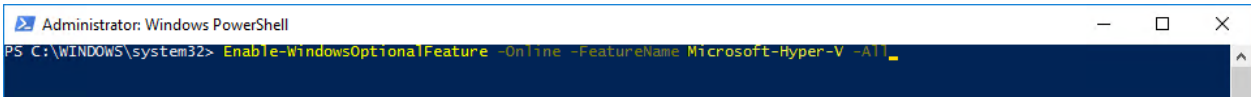
```
chef gem install kitchen-hyperv
```



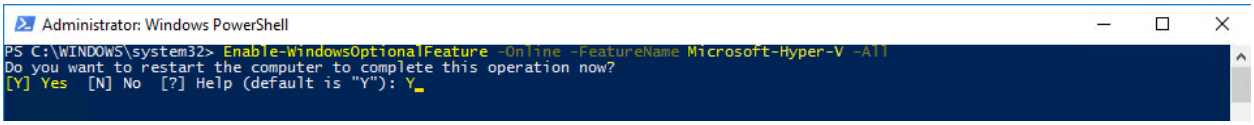
2.7 Enable Windows Hyper-V feature

- Run the following command in PowerShell window.

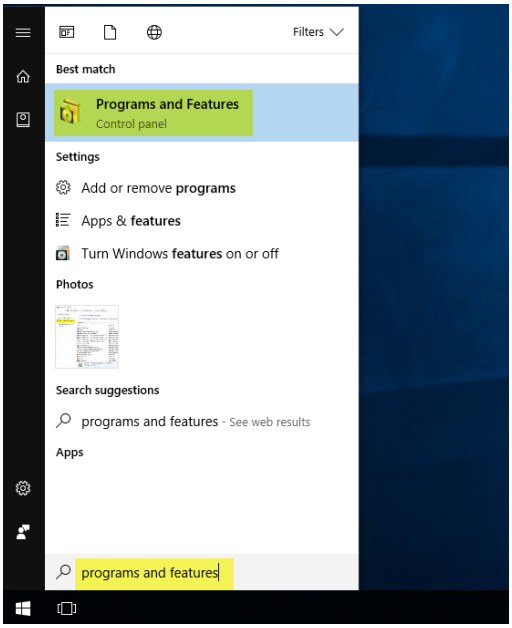
```
Enable-WindowsOptionalFeature -Online -FeatureName Microsoft-Hyper-V -All
```



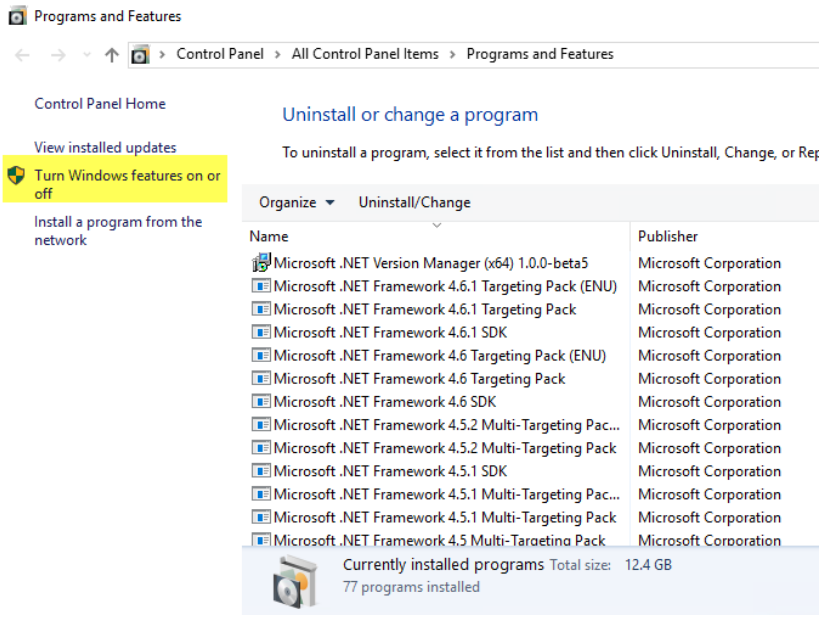
- If you get the following warning, select **Y**



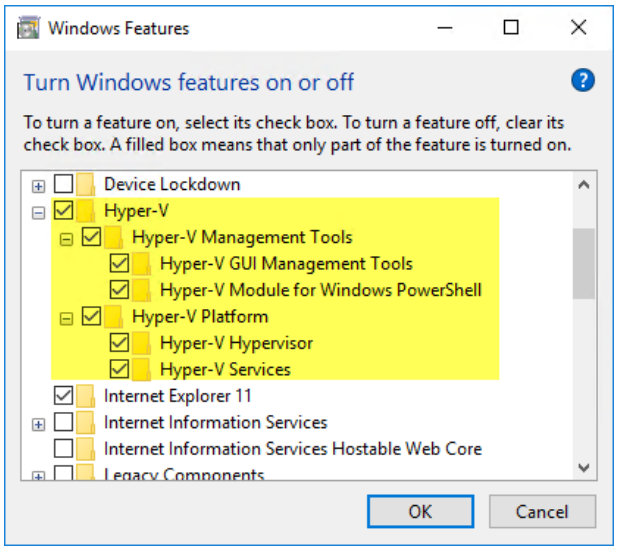
- Verify Windows Hyper-V feature installation
    - During the process of installation, the computer will restart. Once restarted, Go to **Programs and Features**



    - Click on **Turn Windows features on or off**

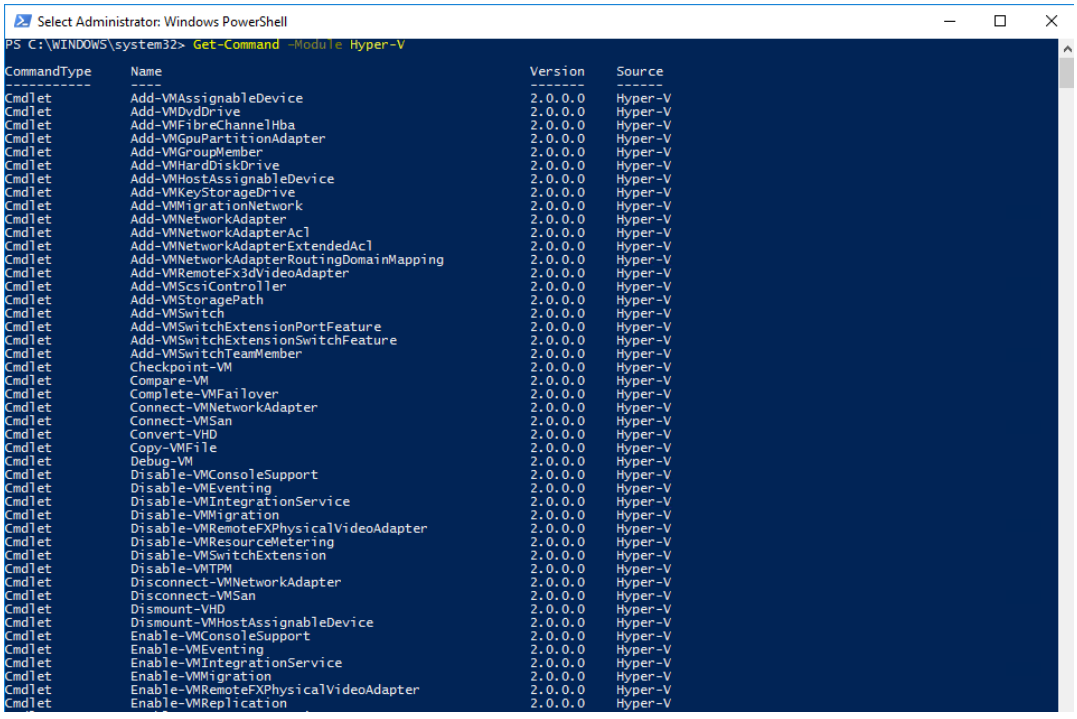


- Verify if Hyper-V is checked as shown in the below screenshot



- You can also verify Hyper-V installation via PowerShell
  - Run the following command in PowerShell window. You should see results as shown in the below screenshot.

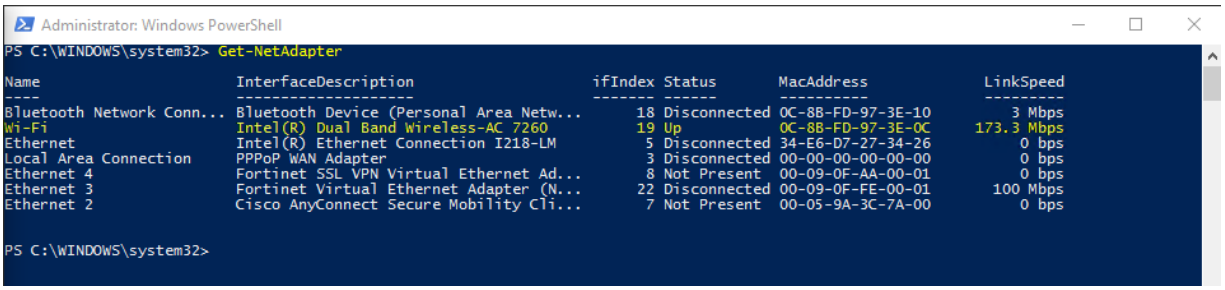
Get-Command –Module Hyper-V



2.8 Create Virtual Switch for Internet Access

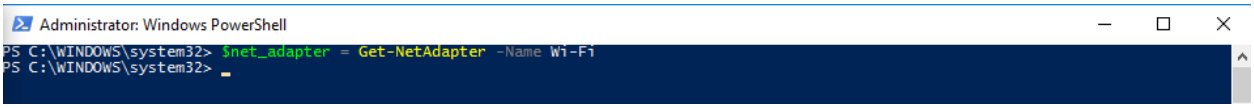
- Identify the current network adapter with status **Up**. Run the following command in PowerShell.

```
Get-NetAdapter
```



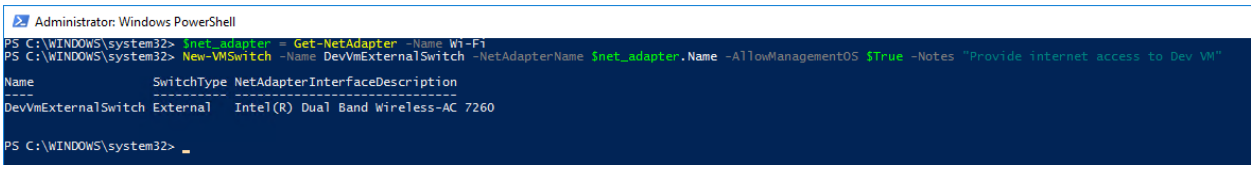
- In the above screenshot, the **Wi-Fi** network has the status **Up**.
- Next create a variable that refers to your public network adapter. Run the following command in PowerShell.

```
$net_adapter = Get-NetAdapter -Name Wi-Fi
```

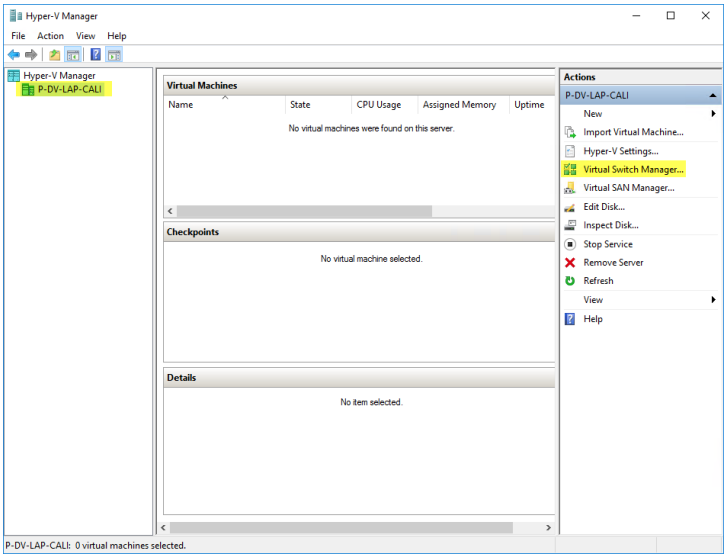


- Now run **New-VMSwitch** command to create the virtual switch. Run the following command in PowerShell window.

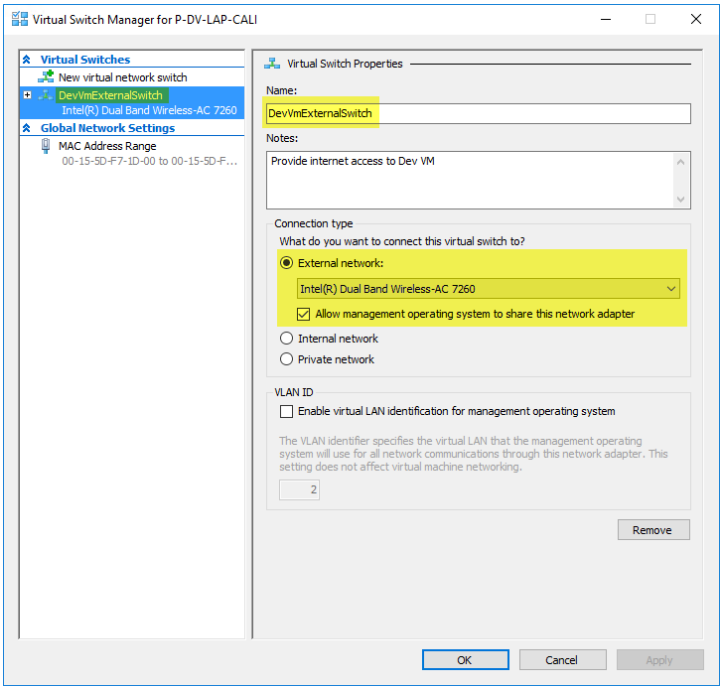
```
New-VMSwitch -Name DevVmExternalSwitch -NetAdapterName $net_adapter.Name -AllowManagementOS $True -Notes "Provide internet access to Dev VM"
```



- Verify the Virtual Switch is created
    - Open **Hyper-V Manager** and go to **Virtual Switch Manager.**



    - Verify your Virtual Switch **DevVmExternalSwitch** exists as shown in in the below screenshot.



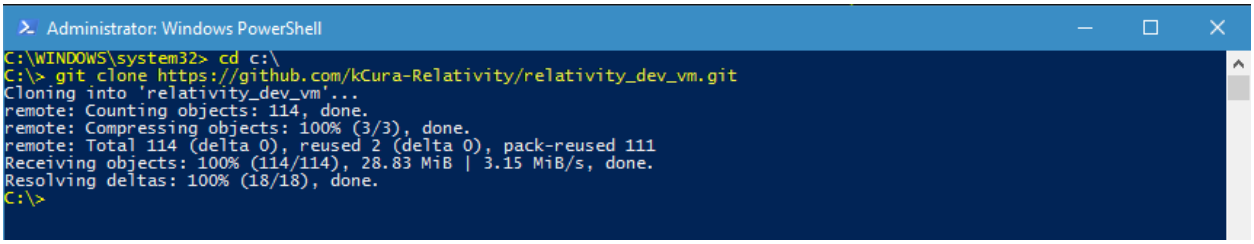
2.9 Clone Relativity Dev VM repository from Github

- You can find the source for Relativity Dev VM open source project at this link - https://github.com/RelativityDev/relativity-dev-vm
- Switch to C drive. Run the following command in PowerShell window.

```
cd c:\
```

- Clone the Relativity Dev VM GIT repository to your workstation. Run the following command in PowerShell window.

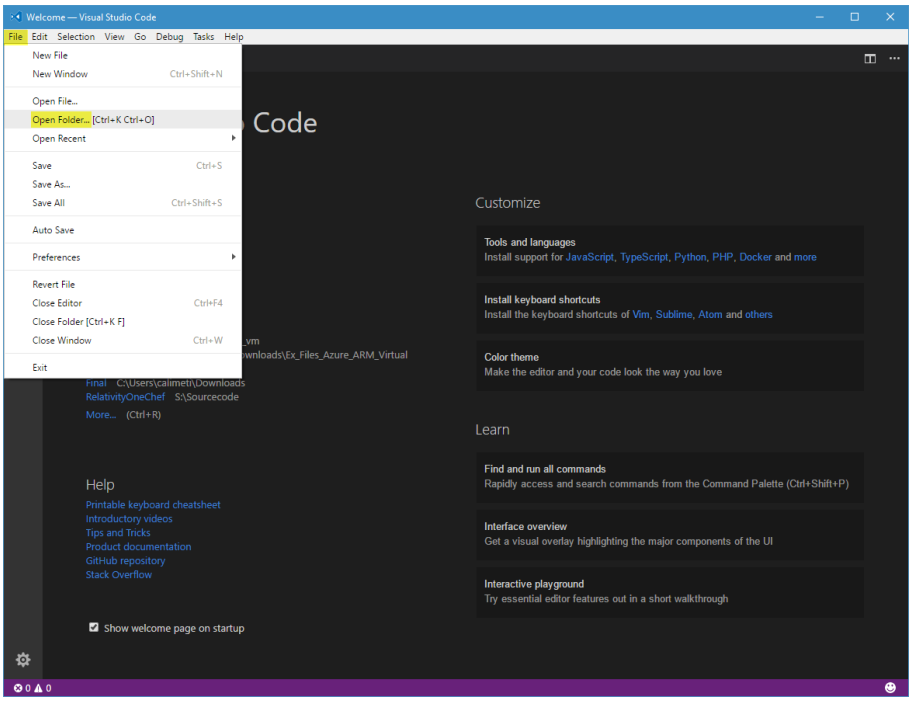
```
git clone https://github.com/RelativityDev/relativity-dev-vm.git
```



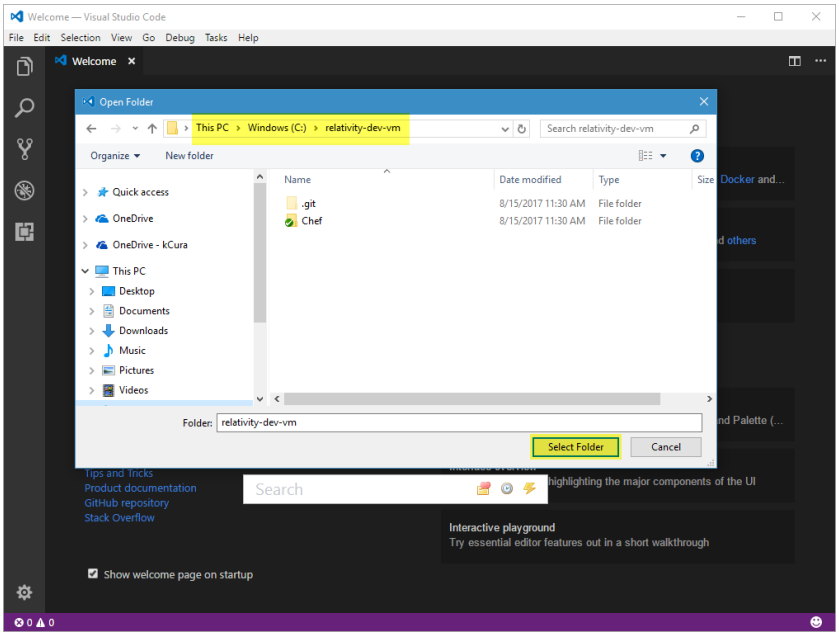
3 Run Test Kitchen commands to create Relativity Dev VM

3.1 Open relativity-dev-vm repository in Visual Studio Code.

- Open **Visual Studio Code** application, click on **File** option and select **Open Folder**.

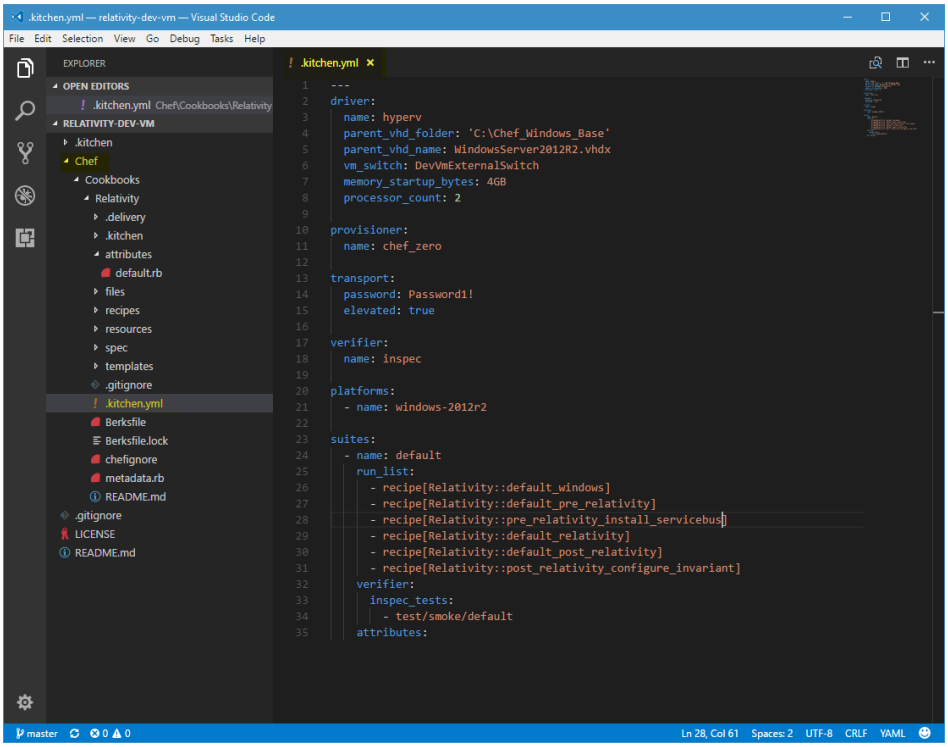


- Select **relativity-dev-vm** folder you previously cloned in your C drive and click **Select Folder**.

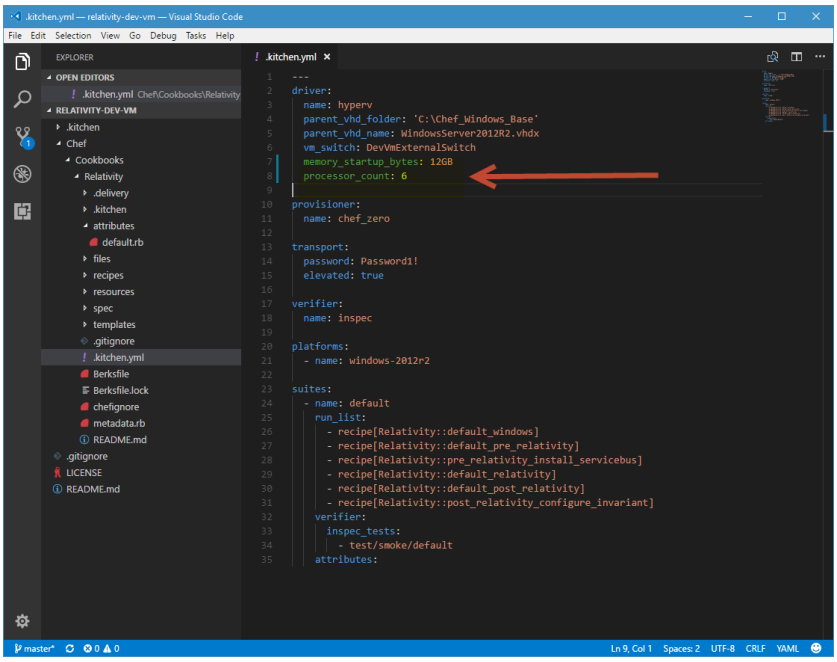


3.2 Update kitchen.yml file for any resource changes

- Open kitchen.yml file in relativity-dev-vm/Chef/Cookbooks/Relativity folder.



- If you have additional resources on your workstation, you can update the processor core and RAM values in the kitchen.yml file.
    - You can change the value of **processor_count** to set the number of processor cores the VM should have.
    - You can change the value of **memory_startup_bytes** to set the amount of RAM the VM should have.

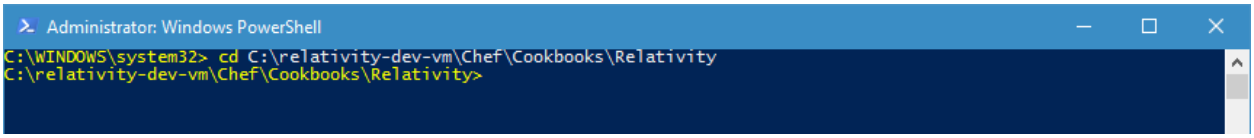


3.3 Create a Hyper-V with Relativity installed

3.3.1 Create Hyper-V VM

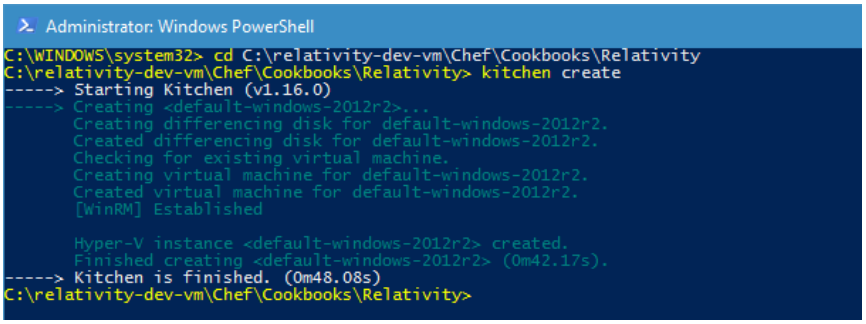
- Move to the repository directory. Run the following command in PowerShell window.

```
cd C:\relativity-dev-vm\Chef\Cookbooks\Relativity
```



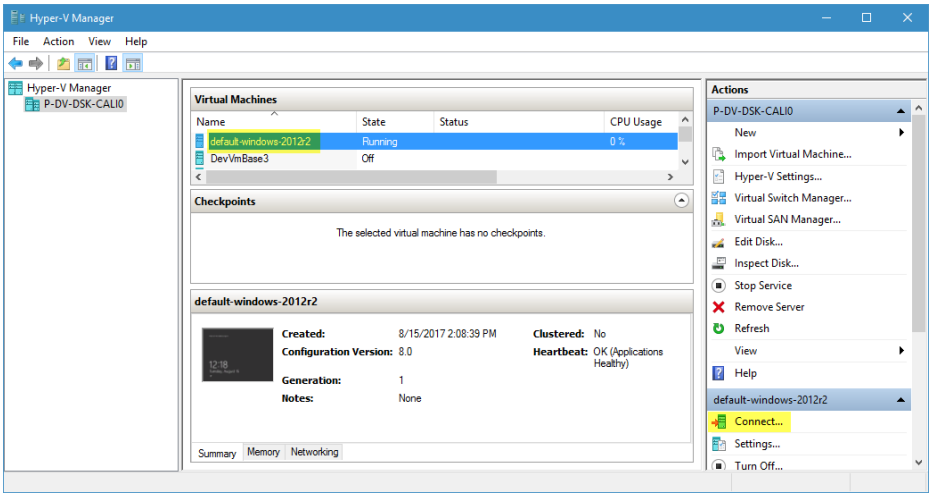
- Create a Hyper-V VM using test kitchen. Run the following command in PowerShell window.

```
kitchen create
```

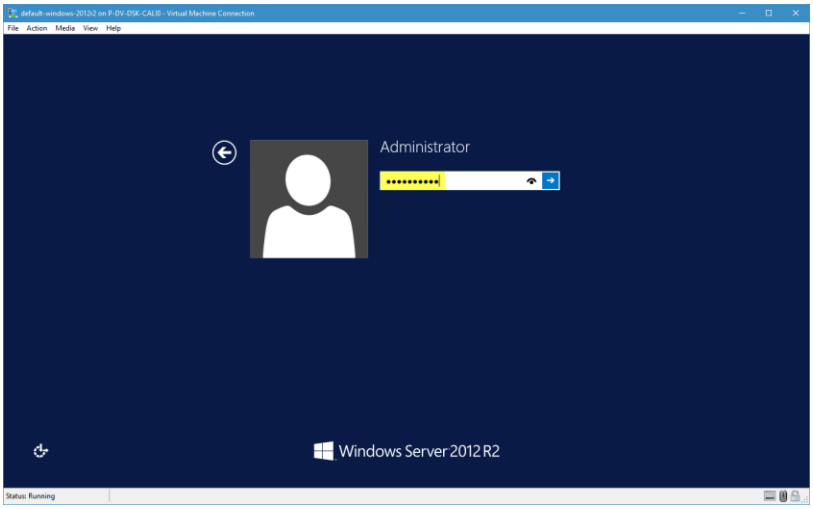


3.3.2 Copy installation files to Hyper-V VM

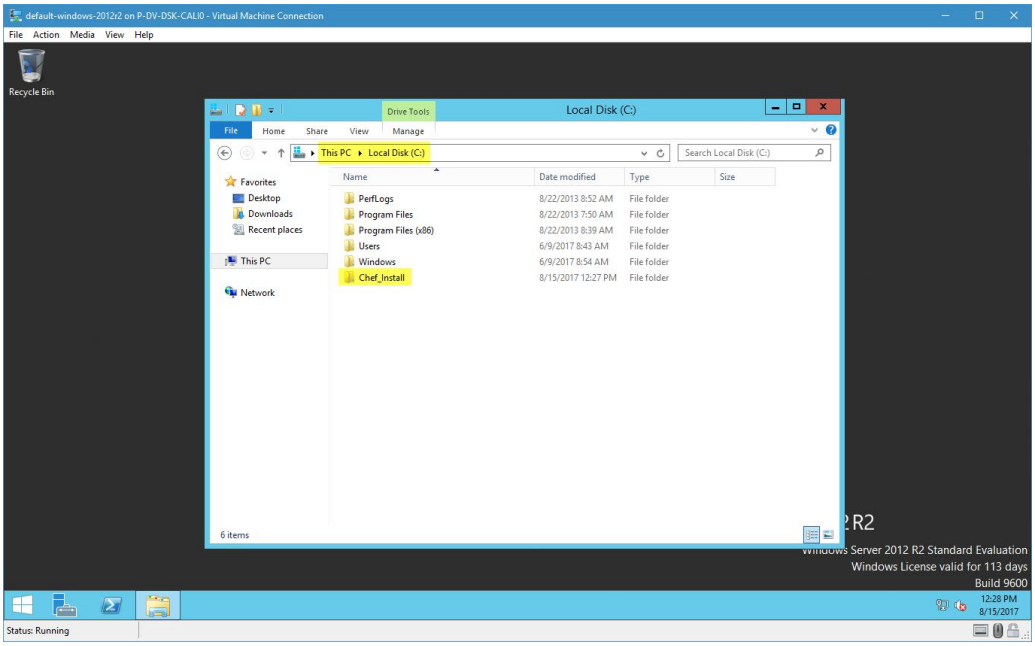
- Connect to your Hyper-V VM from Hyper-V Manager



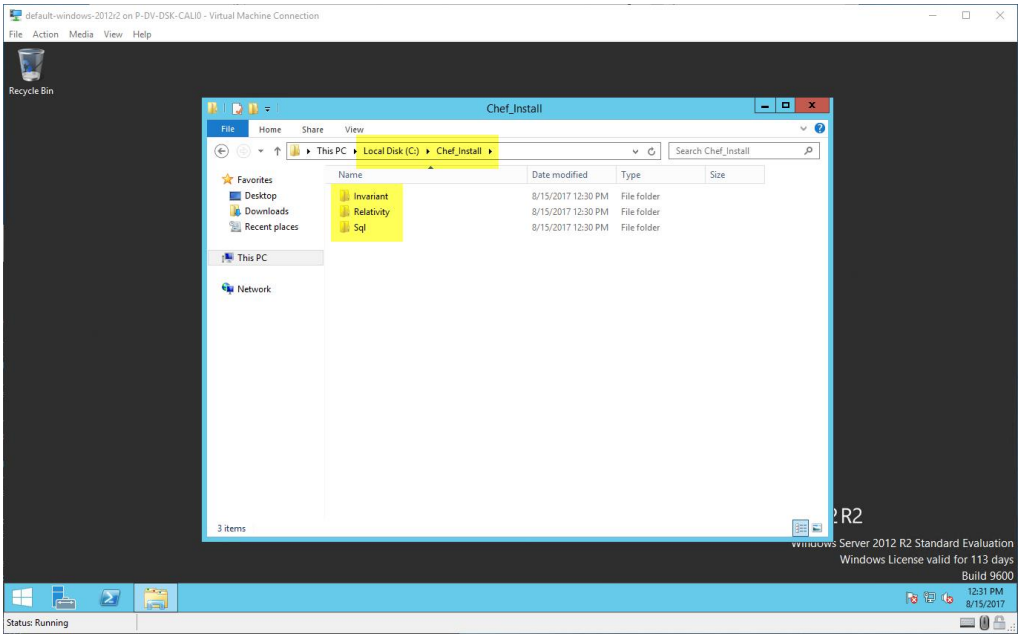
- Enter the password(**Password1!**) for the **Administrator** account and press **Enter**.



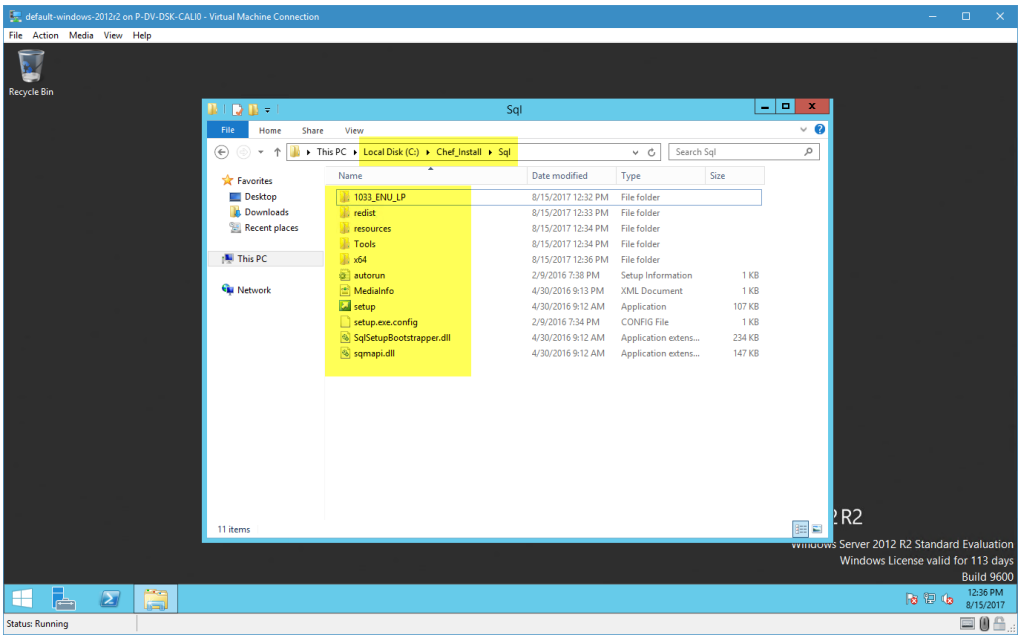
- On your VM, go to C drive and create a folder named **Chef_Install**



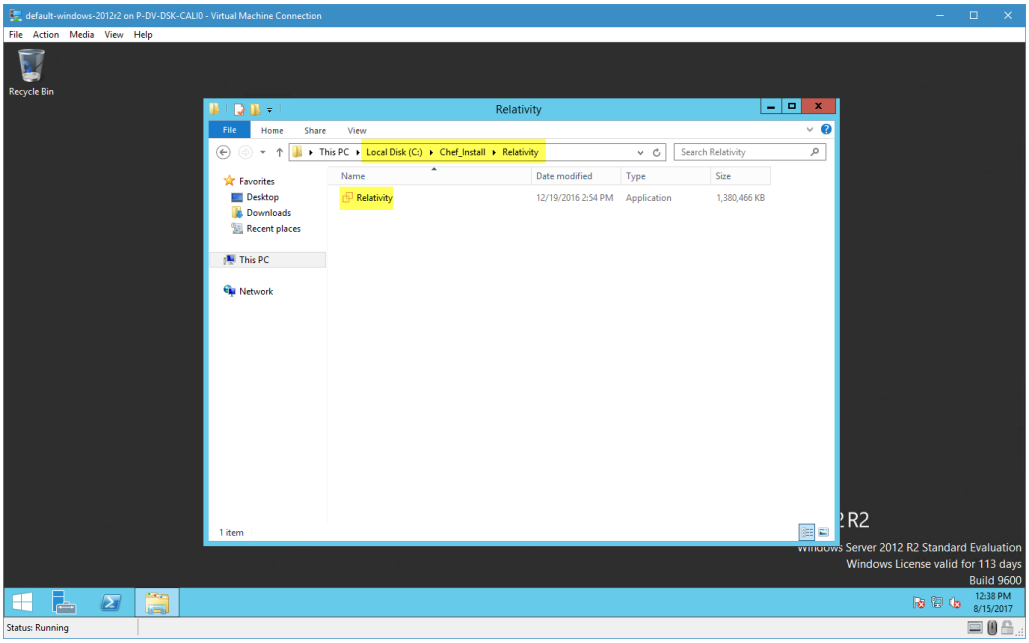
- Create folders named **Sql**, **Relativity** and **Invariant** inside the **Chef_install** folder.



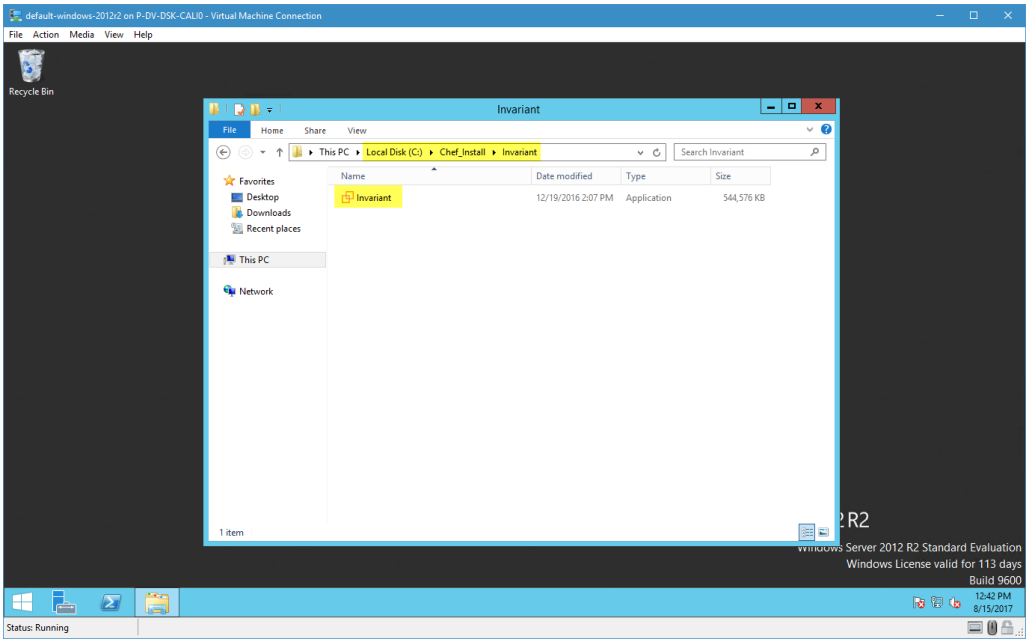
- Extract the **SQL Server 2016 Developer Edition ISO** file previously downloaded and copy its contents to the **Sql** folder on the Hyper-V VM.



- Copy Relativity installer file to **Relativity** folder on the Hyper-V VM.

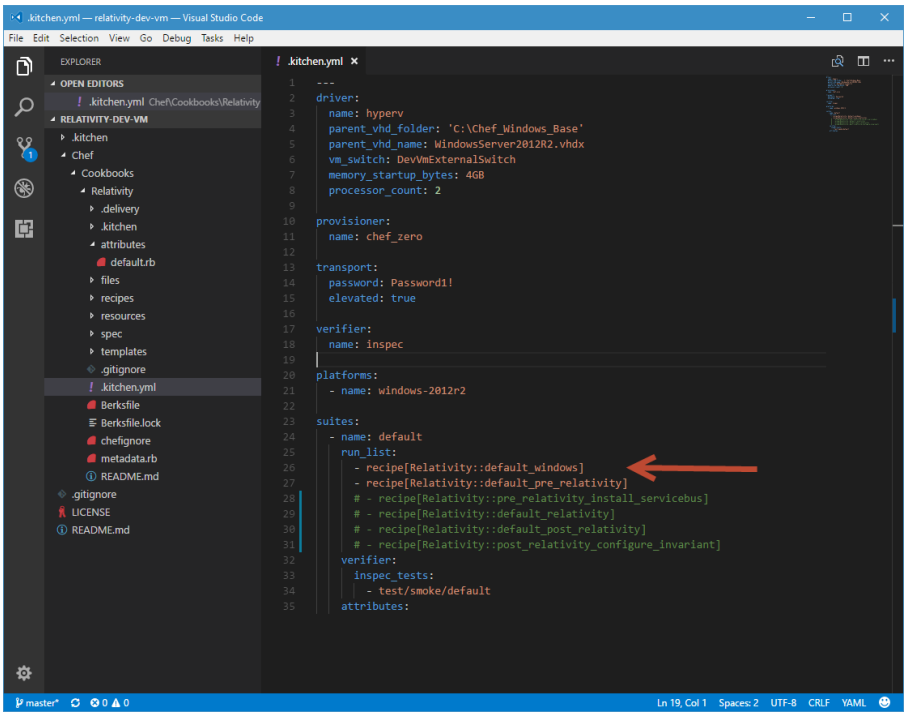


- Copy Invariant installer file to **Invariant** folder on the Hyper-V VM.



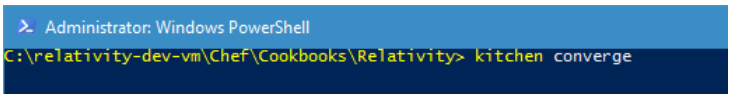
3.3.3 Run pre-relativity install chef script

- In kitchen.yml file, comment the recipes except for pre-relativity install chef recipes as shown in the following screenshot.

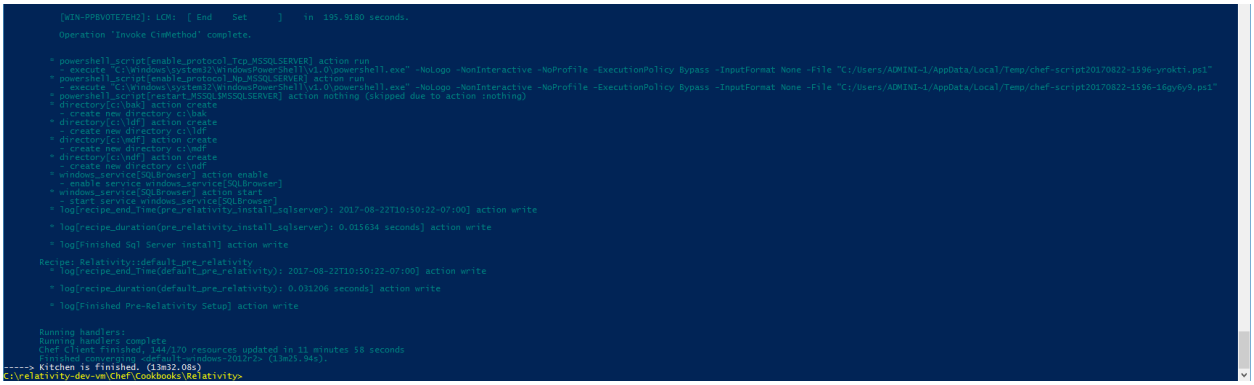


- Run the pre-relativity install chef scripts. Run the following command in PowerShell window.

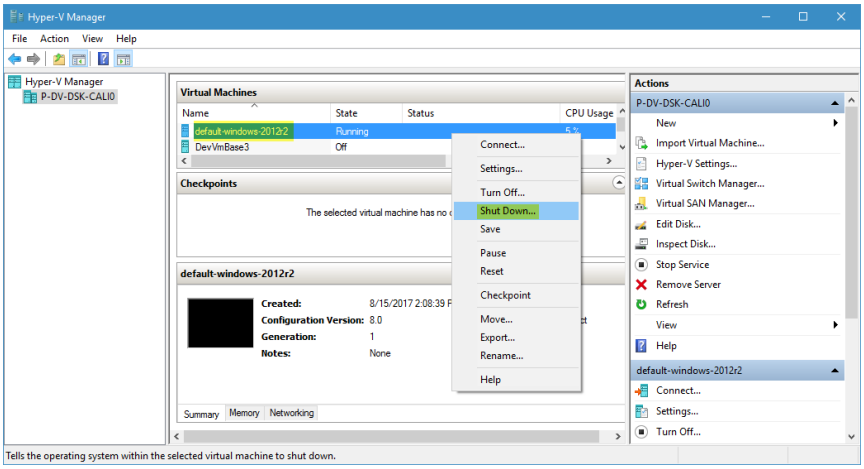
kitchen converge



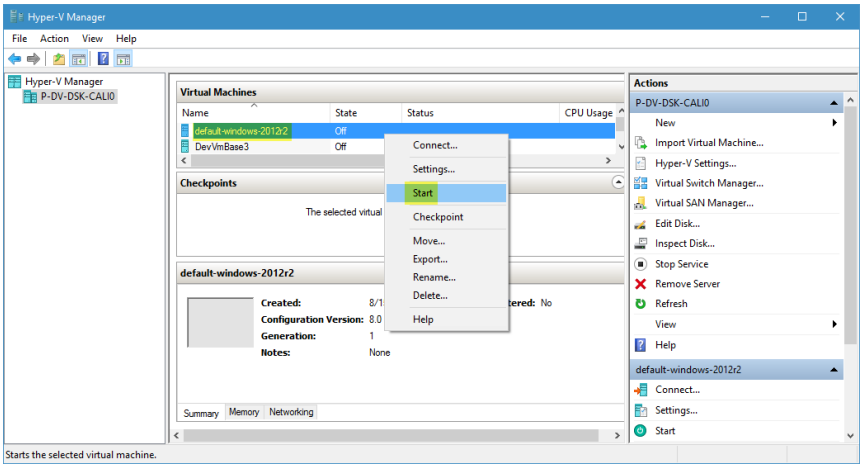
- Wait till the script finishes execution.



- Go to **Hyper-V manager** and restart (**Shut Down** and **Start**) your VM once the script finishes execution.
    - Shut Down

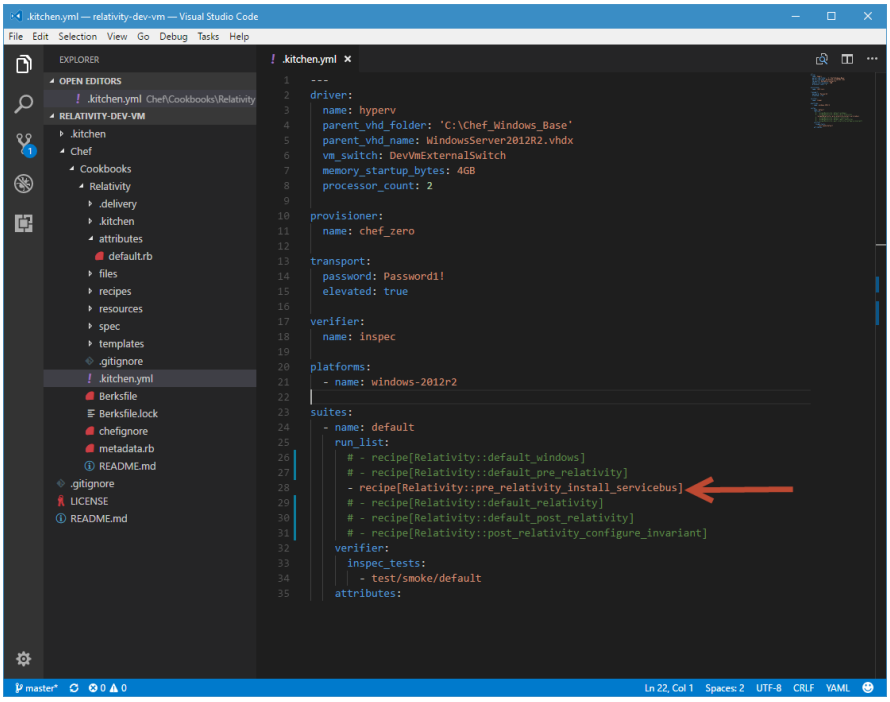


    - Start



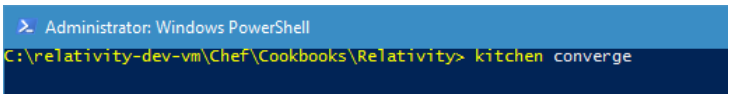
Run pre-relativity service bus install chef script

- In kitchen.yml file, comment the recipes except for pre-relativity service bus install chef recipe as shown in the following screenshot.

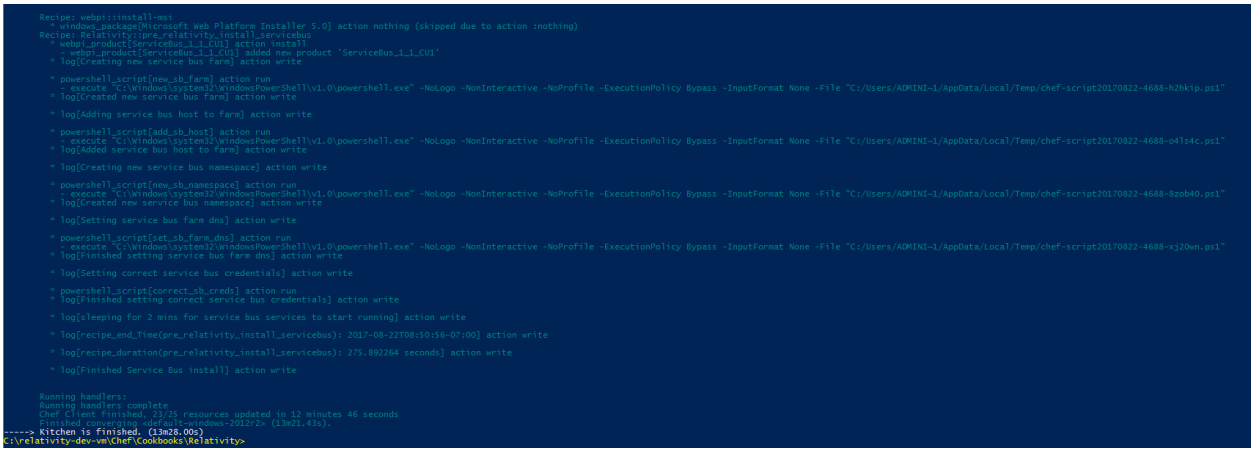


- Run the pre-relativity install chef scripts. Run the following command in PowerShell window.

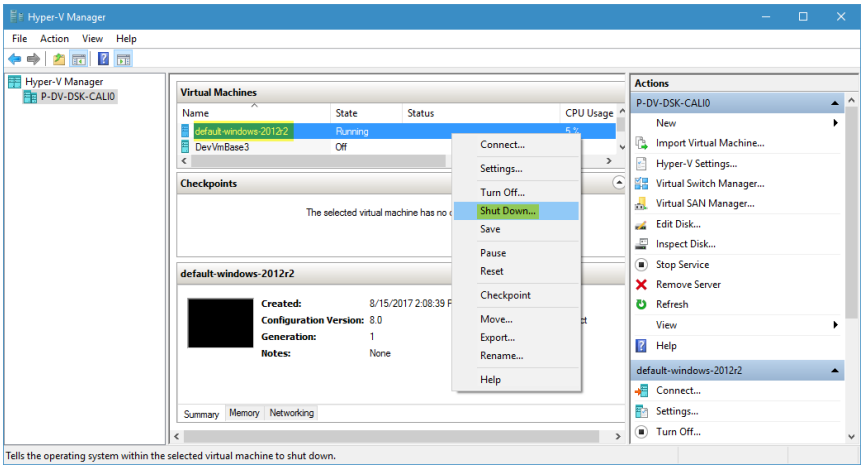
kitchen converge



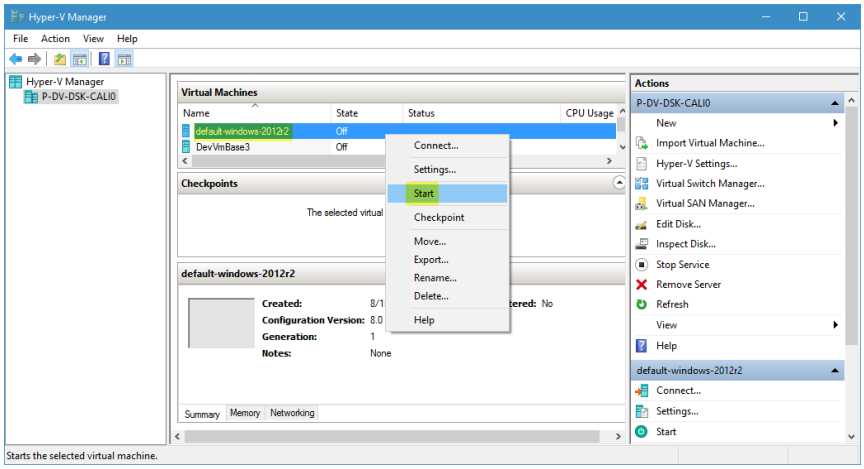
- Wait till the script finishes execution.



- Go to **Hyper-V manager** and restart (**Shut Down** and **Start**) your VM once the script finishes execution.
    - Shut Down



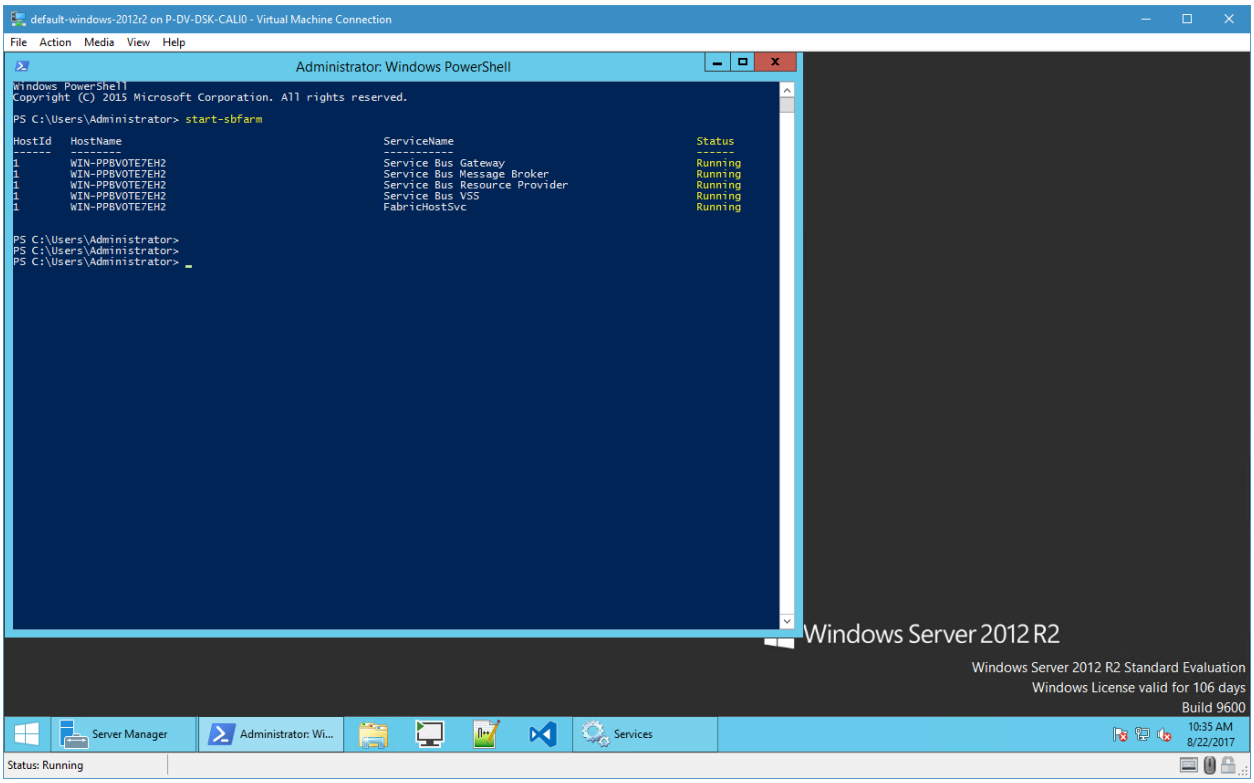
    - Start


Hyper-V Manager
File Action View Help
Hyper-V Manager
P-DV-DSK-CALI0
Virtual Machines
Name State Status CPU Usage
default-windows-2012r2 Off
DevVmBase3 Off
Connect...
Settings...
Start
Checkpoint
Move...
Export...
Rename...
Delete...
Help
Checkpoints
The selected virtual
default-windows-2012r2
Created:
Configuration Version: 8.0
Generation: 1
Notes: None
Summary Memory Networking
Actions
P-DV-DSK-CALI0
New
Import Virtual Machine...
Hyper-V Settings...
Virtual Switch Manager...
Virtual SAN Manager...
Edit Disk...
Inspect Disk...
Stop Service
Remove Server
Refresh
View
Help
default-windows-2012r2
Connect...
Settings...
Start
Starts the selected virtual machine.

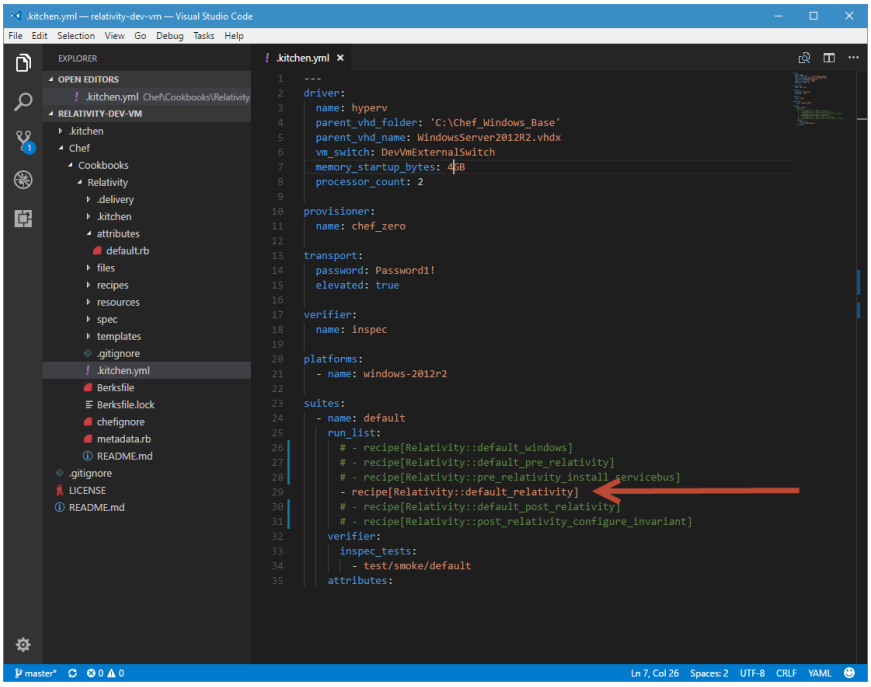
3.3.4 Run relativity install chef script

- Connect to the Hyper-V VM and make sure the Service Bus services are started by running a powershell command. Run the following command in PowerShell window.

```
start-sbfarm
```

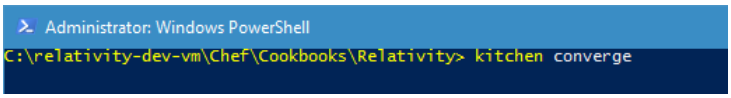


- In kitchen.yml file, comment the recipes except for relativity install chef recipes as shown in the following screenshot.

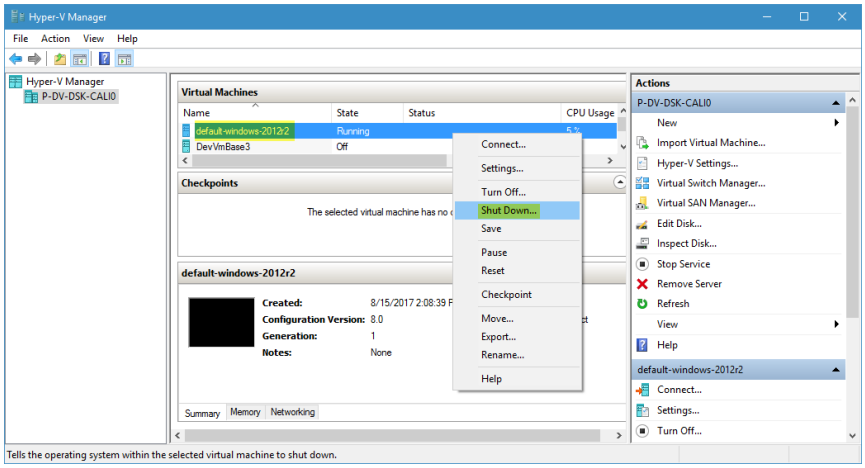


- Run the relativity install chef scripts. Run the following command in PowerShell window.

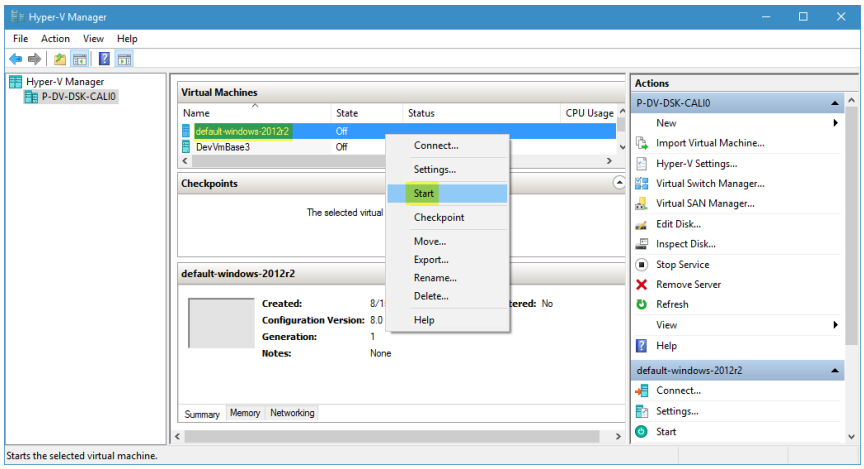
kitchen converge



- Go to **Hyper-V manager** and restart (**Shut Down** and **Start**) your VM once the script finishes execution.
    - Shut Down

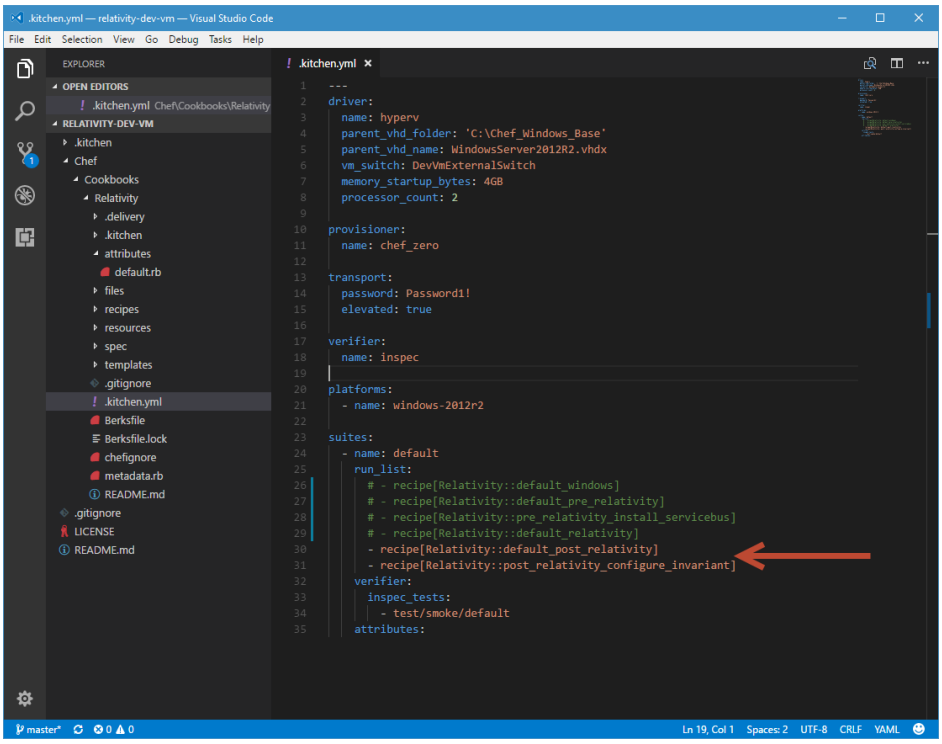


    - Start



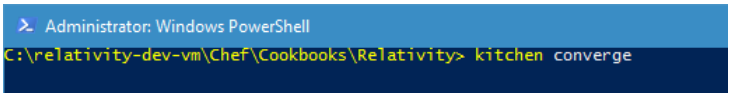
3.3.5 Run post-relativity install chef script

- In kitchen.yml file, comment the recipes except for post-relativity install chef recipes as shown in the following screenshot.

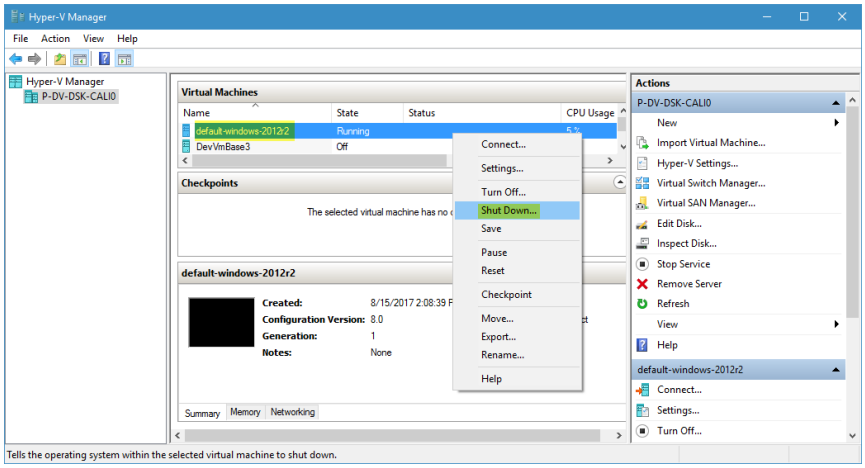


- Run the post-relativity install chef scripts. Run the following command in PowerShell window.

```
kitchen converge
```



- Go to **Hyper-V manager** and restart (**Shut Down** and **Start**) your VM once the script finishes execution.
    - Shut Down



    - Start