



SCHOOL OF COMPUTER SCIENCE

SPCM LAB FILE

ANSIBLE LAB

Submitted by

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Lab Exercise 04

Executing Ansible Modules

Objective: To demonstrate the use of the Ansible module for server configuration and management

Tools required: Linux terminal

Prerequisites: None

Steps to be followed:

1. Use Ansible modules for server configuration

Step 1: Use Ansible modules for server configuration

- 1.1 Run the following command using the **setup** module to collect and display detailed system information about the servers:

ansible -m setup spcm

```
swap: 0 0 0
(ec2-user@ip-172-31-3-184 ~)$ ansible -m setup spcm
[WARNING]: Platform linux on host localhost is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could
change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
localhost | SUCCESS => {
  "ansible_facts": {
    "ansible_all_ipv4_addresses": [
      "172.31.3.184"
    ],
    "ansible_all_ipv6_addresses": [
      "fe80::85f:75ff:fe26:7bcb"
    ],
    "ansible_apparmor": {
      "status": "disabled"
    },
    "ansible_architecture": "x86_64",
    "ansible_bios_date": "08/24/2006",
    "ansible_bios_version": "4.11.amazon",
    "ansible_cmdline": {
      "BOOT_IMAGE": "/boot/vmlinuz-5.10.235-227.919.amzn2.x86_64",
      "biosdevname": "0",
      "console": "ttyS0,115200n8",
      "net.ifnames": "0",
      "nvme_core.io_timeout": "4294967295",
      "rd.emergency": "poweroff",
      "rd.shell": "0"
    }
  }
}
```

```

    "ansible_swaptotal_mb": 0,
    "ansible_system": "Linux",
    "ansible_system_capabilities": [
        ""
    ],
    "ansible_system_capabilities_enforced": "True",
    "ansible_system_vendor": "Xen",
    "ansible_uptime_seconds": 3757,
    "ansible_user_dir": "/home/devops",
    "ansible_user_gecos": "",
    "ansible_user_gid": 1001,
    "ansible_user_id": "devops",
    "ansible_user_shell": "/bin/bash",
    "ansible_user_uid": 1001,
    "ansible_userspace_architecture": "x86_64",
    "ansible_userspace_bits": "64",
    "ansible_virtualization_role": "guest",
    "ansible_virtualization_type": "xen",
    "discovered_interpreter_python": "/usr/bin/python",
    "gather_subset": [
        "all"
    ],
    "module_setup": true
  },
  "changed": false
}
[ec2-user@ip-172-31-3-184 ~]$

```

1.2 Run the following command using the **shell** module to retrieve server hostnames:

ansible spcm -m shell -a 'hostname'

```

[ec2-user@ip-172-31-3-184 ~]$ ansible spcm -m shell -a "hostname"
[WARNING]: Platform linux on host localhost is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could
change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
localhost | CHANGED | rc=0 >>
ip-172-31-3-184.ap-south-1.compute.internal
[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter
could change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | CHANGED | rc=0 >>
ip-172-31-2-18.ap-south-1.compute.internal
[ec2-user@ip-172-31-3-184 ~]$

```

1.3 Run the following command using the **apt** module to install Git on servers:

ansible spcm -m yum -a 'name=git state=present' --become

```

[ec2-user@ip-172-31-3-184 ~]$ ansible spcm -m yum -a 'name=git state=present' --become
[WARNING]: Platform linux on host localhost is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could
change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
localhost | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python"
    },
    "changed": false,
    "msg": "",
    "rc": 0,
    "results": [
        "git-2.47.1-1.amzn2.0.2.x86_64 providing git is already installed"
    ]
}
[WARNING]: Platform linux on host 172.31.2.18 is using the discovered Python interpreter at /usr/bin/python, but future installation of another Python interpreter could
change this. See https://docs.ansible.com/ansible/2.9/reference_appendices/interpreter_discovery.html for more information.
172.31.2.18 | CHANGED => {
    "ansible_facts": {
        "discovered_interpreter_python": "/usr/bin/python"
    },
    "changed": true,
    "changes": {
        "installed": {

```

```

2.47.1-1.amzn2.0.2 will be installed\n--> Processing Dependency: git-core = 2.47.1-1.amzn2.0.2 for package: git-2.47.1-1.amzn2.0.2.x86_64\n--> Processing Dependency: git-
re-doc = 2.47.1-1.amzn2.0.2 for package: git-2.47.1-1.amzn2.0.2.x86_64\n--> Processing Dependency: perl-Git = 2.47.1-1.amzn2.0.2 for package: git-2.47.1-1.amzn2.
6_64\n--> Processing Dependency: perl(Git) for package: git-2.47.1-1.amzn2.0.2.x86_64\n--> Processing Dependency: perl(Term::ReadKey) for package: git-2.47.1-1.amzn2.
.2.x86_64\n--> Running transaction check\n--> Package git-core.x86_64 0:2.47.1-1.amzn2.0.2 will be installed\n--> Package git-core-doc.noarch 0:2.47.1-1.amzn2.0.2 w
ll be installed\n--> Package perl-Git.noarch 0:2.47.1-1.amzn2.0.2 will be installed\n--> Processing Dependency: perl(Error) for package: perl-Git-2.47.1-1.amzn2.0.2
noarch\n--> Package perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2 will be installed\n--> Running transaction check\n--> Package perl-Error.noarch 1:0.17020-2.amzn2 wi
ll be installed\n--> Finished Dependency Resolution\n\nDependencies Resolved\n\n-----\n\nPackage Arch Version Repository Size\n\nInstalling for dependencies:\n\n git-core x86_64 2.47.1-1.amzn2.0.2 amzn2-core 57 k\n perl-Error.noarch 1:0.17020-2.amzn2 amzn2-core 31 k\n perl-Git.noarch 0:2.47.1-1.amzn2.0.2 noarch 2.47.1-1.amzn2.0.2 amzn2-core 32 k\n perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2 noarch 2.47.1-1.amzn2.0.2 amzn2-core 44 k\n perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2 noarch 2.47.1-1.amzn2.0.2 amzn2-core 31 k\n\nTransaction Summary\n\nTotal download size: 15 M\nInstalled size: 47 M\nDownloading packages:\n\n-----\n\nRunning transaction check\nRunning transaction test\nTransaction test succeeded\nRunning transac
tion\n Installing : git-core-2.47.1-1.amzn2.0.2.x86_64 1/6 \n Installing : git-core-doc-2.47.1-1.amzn2.0.2.noarch 2/6 \n Installing : perl-Error-0.17020-2.amzn2.noarch 3/6 \n Installing : perl-TermReadKey-2.30-20.amzn2.0.2.x86_64 4/6 \n Installing : perl-Git-2.47.1-1.amzn2.0.2.noarch 5/6 \n Installing : git-2.47.1-1.amzn2.0.2.x86_64 6/6 \n Verifying : perl-TermReadKey-2.30-20.amzn2.0.2.x86_64 1/6 \n Verifying : perl-Git-2.47.1-1.amzn2.0.2.noarch 2/6 \n Verifying : git-2.47.1-1.amzn2.0.2.x86_64 3/6 \n Verifying : perl-Error-0.17020-2.amzn2.noarch 4/6 \n Verifying : git-core-doc-2.47.1-1.amzn2.0.2.noarch 5/6 \n Verifying : git-core-2.47.1-1.amzn2.0.2.x86_64 6/6 \n\nInstalled:
git.x86_64 0:2.47.1-1.amzn2.0.2\n\nDependency Installed:\n git-core.x86_64 0:2.47.1-1.amzn2.0.2\n perl-Error.noarch 1:0.17020-2.amzn2\n perl-Git.noarch 0:2.47.1-1.amzn2.0.2\n perl-TermReadKey.x86_64 0:2.30-20.amzn2.0.2\n\nComplete!\n"
}
}
[ec2-user@ip-172-31-3-184 ~]$

```