

## COMP.SE.140 – Exercise 6: Ansible

### Initial commands

- Running 1<sup>st</sup> docker container
- Inspecting the IP address
- Setting the IP address as host

```
ubuntu@ip-172-31-92-112:~/ansible/docker-compose-cs$ sudo docker run -d ssh-image
61054feafcc6e1efe0be37ff6acba86a1dd9bc225930ef4bdcc43080dca6a40e4
ubuntu@ip-172-31-92-112:~/ansible/docker-compose-cs$ sudo docker ps
CONTAINER ID   IMAGE     COMMAND                  CREATED       STATUS       PORTS       NAMES
61054feafcc6   ssh-image "/usr/sbin/sshd -D"     7 seconds ago Up 6 seconds 22/tcp      zealous_mcnulty
ubuntu@ip-172-31-92-112:~/ansible/docker-compose-cs$ sudo docker inspect -f '{{range .NetworkSettings.Networks}}{{.IPAddress}}{{end}}' 61054feafcc6
172.17.0.2
ubuntu@ip-172-31-92-112:~/ansible/docker-compose-cs$
```

### Output 01

```
ubuntu@ip-172-31-92-112:~/ansible/docker-compose-cs$ sudo ansible-playbook -i /home/ubuntu/config/ansible_hosts playbook.yml

PLAY [all] *****

TASK [Gathering Facts] *****
ok: [host1]

TASK [Check if GIT is installed] *****
changed: [host1]

TASK [get uptime] *****
changed: [host1]

TASK [debug] *****
ok: [host1] => {
  "msg": {
    "Server uptime : [' 21:48:24 up 2 days,  9:54,  1 user,  load average: 0.00, 0.01, 0.00']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-files/Unpacked/halfF-conf/Half-inst/trig-aWait/Trig-pend', '|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)', '||/ Name          Version          Architecture Description', '+++-----'
    '-----', 'ii git              1:2.17.1-1ubuntu0.13 amd64          fast, scalable, distributed revision control system']"
  }
}

PLAY RECAP *****
host1                : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

#### PLAY [all]

```
*****
*****
```

#### TASK [Gathering Facts]

```
*****
*****
```

#### ok: [host1]

#### TASK [Check if GIT is installed]

```
*****
*****
```

#### changed: [host1]

#### TASK [get uptime]

```
*****
*****
```

**changed: [host1]**

### **TASK [debug]**

```
*****
*****
```

**ok: [host1] => {**

**"msg": [**

**"Server uptime : [' 21:48:24 up 2 days, 9:54, 1 user, load average: 0.00, 0.01, 0.00']",**

**"Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-  
files/Unpacked/half-conf/Half-inst/trig-aWait/Trig-pend', '|/ Err?=(none)/Reinst-required (Status,Err:  
uppercase=bad)', '||/ Name Version Architecture Description', '+++-----  
=====',  
'ii git 1:2.17.1-1ubuntu0.13 amd64 fast, scalable, distributed revision control system']"**

**]**

**}**

### **PLAY RECAP**

```
*****
*****
```

**host1 : ok=4 changed=2 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0**

## **Output 02**

```
ubuntu@ip-172-31-92-112:~/ansible/docker-compose-cs$ sudo ansible-playbook -i /home/ubuntu/config/ansible_hosts playbook.yml

PLAY [all] *****

TASK [Gathering Facts] *****
ok: [host1]

TASK [Check if GIT is installed] *****
changed: [host1]

TASK [get uptime] *****
changed: [host1]

TASK [debug] *****
ok: [host1] => {
  "msg": [
    "Server uptime : [' 21:49:38 up 2 days, 9:55, 1 user, load average: 0.00, 0.00, 0.00']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-files/Unpacked/half-conf/Half-inst/trig-aWait/Trig-pend', '|/ Err?=(none)/Reinst-required (Status,Err: uppercase=bad)', '||/ Name Version Architecture Description', '+++-----',
    'ii git 1:2.17.1-1ubuntu0.13 amd64 fast, scalable, distributed revision control system']"
  ]
}

PLAY RECAP *****
host1 : ok=4 changed=2 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0
```

### **PLAY [all]**

```
*****
*****
```

### ***TASK [Gathering Facts]***

\*\*\*\*\*  
\*\*\*\*\*

***ok: [host1]***

### ***TASK [Check if GIT is installed]***

\*\*\*\*\*  
\*\*\*\*\*

***changed: [host1]***

### ***TASK [get uptime]***

\*\*\*\*\*  
\*\*\*\*\*

***changed: [host1]***

### ***TASK [debug]***

\*\*\*\*\*  
\*\*\*\*\*

***ok: [host1] => {***

***"msg": [***

***"Server uptime : [' 21:49:38 up 2 days, 9:55, 1 user, load average: 0.00, 0.00, 0.00']",***

***"Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-  
files/Unpacked/half-conf/Half-inst/trig-aWait/Trig-pend', '|/ Err?=(none)/Reinst-required (Status,Err:  
uppercase=bad)', '||/ Name Version Architecture Description', '+++-----  
-----'-----',  
'ii git 1:2.17.1-1ubuntu0.13 amd64 fast, scalable, distributed revision control system']"***

***]***

***}***

### ***PLAY RECAP***

\*\*\*\*\*  
\*\*\*\*\*

***host1 : ok=4 changed=2 unreachable=0 failed=0 skipped=0 rescued=0 ignored=0***

### **Output 03**

```
PLAY [all] *****

TASK [Gathering Facts] *****
ok: [host1]
ok: [host2]

TASK [Check if GIT is installed] *****
changed: [host2]
changed: [host1]

TASK [get uptime] *****
changed: [host1]
changed: [host2]

TASK [debug] *****
ok: [host1] => {
  "msg": {
    "Server uptime : [' 21:53:22 up 2 days,  9:59,  1 user,  load average: 0.16, 0.04, 0.01']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend', '|/
Err?=(none)/Reinst-required (Status,Err: uppercase=bad)', '||/ Name          Version          Architecture Description', '++-----
=====', 'ii  git              1:2.17.1-ubuntu0.13 amd64      fast, scalable, distributed
revision control system']"
  }
}
ok: [host2] => {
  "msg": {
    "Server uptime : [' 21:53:22 up 2 days,  9:59,  1 user,  load average: 0.16, 0.04, 0.01']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend', '|/
Err?=(none)/Reinst-required (Status,Err: uppercase=bad)', '||/ Name          Version          Architecture Description', '++-----
=====', 'ii  git              1:2.17.1-ubuntu0.13 amd64      fast, scalable, distributed
revision control system']"
  }
}

PLAY RECAP *****
host1      : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
host2      : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

## PLAY [all]

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## TASK [Gathering Facts]

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ok: [host1]

ok: [host2]

## TASK [Check if GIT is installed]

\*\*\*\*\*

\*\*\*\*\*

changed: [host2]

changed: [host1]

## TASK [get uptime]

\*\*\*\*\*

\*\*\*\*\*

changed: [host1]

changed: [host2]

## TASK [debug]

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```
ok: [host1] => {
  "msg": [
    "Server uptime : [' 21:53:22 up 2 days, 9:59, 1 user, load average: 0.16, 0.04, 0.01']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-
files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend', '|/ Err?=(none)/Reinst-required (Status,Err:
uppercase=bad)', '||/ Name      Version      Architecture Description', '+++-----=
=====',
    'ii git      1:2.17.1-1ubuntu0.13 amd64    fast, scalable, distributed revision control system']"
  ]
}
```

```
ok: [host2] => {
  "msg": [
    "Server uptime : [' 21:53:22 up 2 days, 9:59, 1 user, load average: 0.16, 0.04, 0.01']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-
files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend', '|/ Err?=(none)/Reinst-required (Status,Err:
uppercase=bad)', '||/ Name      Version      Architecture Description', '+++-----=
=====',
    'ii git      1:2.17.1-1ubuntu0.13 amd64    fast, scalable, distributed revision control system']"
  ]
}
```

#### PLAY RECAP

```
*****
*****
```

```
host1      : ok=4  changed=2  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
host2      : ok=4  changed=2  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
```

#### Output 04

```
PLAY [all] *****

TASK [Gathering Facts] *****
ok: [host2]
ok: [host1]

TASK [Check if GIT is installed] *****
changed: [host2]
changed: [host1]

TASK [get uptime] *****
changed: [host1]
changed: [host2]

TASK [debug] *****
ok: [host1] => {
  "msg": {
    "Server uptime : [' 21:54:22 up 2 days, 10:00,  1 user,  load average: 0.22, 0.06, 0.02']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-files/Unpacked/halfF-conf/Half-inst/trig-aWait/Trig-pend', '|/
Err?=(none)/Reinst-required (Status,Err: uppercase=bad)', '||/ Name          Version          Architecture Description', '+++-----
=====', 'ii git              1:2.17.1-1ubuntu0.13 amd64          fast, scalable, distributed
revision control system']"
  }
}
ok: [host2] => {
  "msg": {
    "Server uptime : [' 21:54:22 up 2 days, 10:00,  1 user,  load average: 0.22, 0.06, 0.02']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-files/Unpacked/halfF-conf/Half-inst/trig-aWait/Trig-pend', '|/
Err?=(none)/Reinst-required (Status,Err: uppercase=bad)', '||/ Name          Version          Architecture Description', '+++-----
=====', 'ii git              1:2.17.1-1ubuntu0.13 amd64          fast, scalable, distributed
revision control system']"
  }
}

PLAY RECAP *****
host1      : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
host2      : ok=4    changed=2    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```

**PLAY [all]**

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**TASK [Gathering Facts]**

\*\*\*\*\*

\*\*\*\*\*

**ok: [host2]**

**ok: [host1]**

**TASK [Check if GIT is installed]**

\*\*\*\*\*

\*\*\*\*\*

**changed: [host2]**

**changed: [host1]**

**TASK [get uptime]**

\*\*\*\*\*

\*\*\*\*\*

**changed: [host1]**

**changed: [host2]**

**TASK [debug]**

\*\*\*\*\*

\*\*\*\*\*

```

ok: [host1] => {
  "msg": [
    "Server uptime : [' 21:54:22 up 2 days, 10:00, 1 user, load average: 0.22, 0.06, 0.02']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-
files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend', '|/ Err?=(none)/Reinst-required (Status,Err:
uppercase=bad)', '||/ Name      Version      Architecture Description', '+++-----
-----',
'ii git      1:2.17.1-1ubuntu0.13 amd64    fast, scalable, distributed revision control system']"
  ]
}

ok: [host2] => {
  "msg": [
    "Server uptime : [' 21:54:22 up 2 days, 10:00, 1 user, load average: 0.22, 0.06, 0.02']",
    "Is GIT installed: ['Desired=Unknown/Install/Remove/Purge/Hold', '| Status=Not/Inst/Conf-
files/Unpacked/halF-conf/Half-inst/trig-aWait/Trig-pend', '|/ Err?=(none)/Reinst-required (Status,Err:
uppercase=bad)', '||/ Name      Version      Architecture Description', '+++-----
-----',
'ii git      1:2.17.1-1ubuntu0.13 amd64    fast, scalable, distributed revision control system']"
  ]
}

```

## PLAY RECAP

```

*****
*****

```

```

host1      : ok=4  changed=2  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0
host2      : ok=4  changed=2  unreachable=0  failed=0  skipped=0  rescued=0  ignored=0

```

- Analyze: is the output of uptime-command as expected. If not, why?

Uptime command was always given the host machine uptime through the ansible output. This is the reason in the 3<sup>rd</sup> and 4<sup>th</sup> outputs we got the same uptime for both docker containers.

- Comments on what was easy and what was difficult.

Configuring open ssh socker image was hard for the macOS due to its network limitations. Due to this, I completed these exercises on AWS EC2 instance.

