

## Variables and Debugging

1. For this lab again create a new file by copying the previous file content to it.
2. Then go into that file or directory.

```
ubuntu@ip-172-31-12-170:~/demodirectory$ ls
exc1 exc2 exc3 exc4 exc5 exc6
ubuntu@ip-172-31-12-170:~/demodirectory$ cp -r exc6/ exc7
ubuntu@ip-172-31-12-170:~/demodirectory$ ls
exc1 exc2 exc3 exc4 exc5 exc6 exc7
ubuntu@ip-172-31-12-170:~/demodirectory$ cd exc7
ubuntu@ip-172-31-12-170:~/demodirectory/exc7$ |
```

3. Now directory go into your YAML.

```
vim demodb.yaml
```

```
ubuntu@ip-172-31-12-170:~/demodirectory/exc6$ vim demodb.yaml|
```

4. In there you need to make some changes to your code.

```
---
- name: DBserver setup
  hosts: dbservers
  become: yes
  vars:
    dbname: ansible
    dbuser: demouser
    dbpass: demo
  tasks:
    - name: Install mariadb-server
      ansible.builtin.yum:
        name: mariadb-server
        state: present
    - name: Install pymysql
      ansible.builtin.yum:
        name: python3-PyMySQL
        state: present
    - name: Start mariadb service
      ansible.builtin.service:
```

```
name: mariadb
state: started
enabled: yes

- name: Create a new database
  community.mysql.mysql_db:
    name: "{{dbname}}"
    state: present
    login_unix_socket: /var/lib/mysql/mysql.sock

- name: Create database
  community.mysql.mysql_user:
    name: "{{dbuser}}"
    password: "{{dbpass}}"
    priv: '*.*:ALL'
    state: present
    login_unix_socket: /var/lib/mysql/mysql.sock
```

```
ubuntu@ip-172-31-12-170: ~/i + | v
---
- name: DBserver setup
  hosts: dbservers
  become: yes
  vars:
    dbname: ansible
    dbuser: demouser
    dbpass: demo
  tasks:
    - name: Install mariadb-server
      ansible.builtin.yum:
        name: mariadb-server
        state: present

    - name: Install pymysql
      ansible.builtin.yum:
        name: python3-PyMySQL
        state: present

    - name: Start mariadb service
      ansible.builtin.service:
        name: mariadb
        state: started
        enabled: yes

    - name: Create a new database
      community.mysql.mysql_db:
        name: "{{dbname}}"
        state: present
        login_unix_socket: /var/lib/mysql/mysql.sock

    - name: Create database
      community.mysql.mysql_user:
        name: "{{dbuser}}"
        password: "{{dbpass}}"
        priv: '*.*:ALL'
        state: present
        login_unix_socket: /var/lib/mysql/mysql.sock
```

5. Now run the ansible playbook command. But you will see that you cannot see the user's name or database name.

```
ansible-playbook -i inventory demodb.yaml
```

```

ubuntu@ip-172-31-12-170:~/demodirectory/exc7$ ansible-playbook demodb.yaml
[WARNING]: provided hosts list is empty, only localhost is available. Note that the implicit
localhost does not match 'all'
[WARNING]: Could not match supplied host pattern, ignoring: dbservers

PLAY [DBserver setup] **** skipping: no hosts matched

PLAY RECAP ****
ubuntu@ip-172-31-12-170:~/demodirectory/exc7$ ansible-playbook -i inventory demodb.yaml

PLAY [DBserver setup] ****
TASK [Gathering Facts] **** ok: [demodb01]

TASK [Install mariadb-server] **** ok: [demodb01]
TASK [Install pymysql] **** ok: [demodb01]
TASK [Start mariadb service] **** ok: [demodb01]
TASK [Create a new database] **** changed: [demodb01]

TASK [Create database] **** [WARNING]: Option column_case_sensitive is not provided. The default is now false, so the column's
name will be uppercased. The default will be changed to true in community.mysql 4.0.0.
changed: [demodb01]

PLAY RECAP ****
demodb01 : ok=6    changed=2    unreachable=0   failed=0    skipped=0   rescued=0   ignored=0

ubuntu@ip-172-31-12-170:~/demodirectory/exc7$ |

```

6. So, for that you need to define that in the tasks. Now add some changes to your code.

```

---
- name: DBserver setup
  hosts: dbservers
  become: yes
  vars:
    dbname: ansible
    dbuser: demousr
    dbpass: demo
  tasks:
    - debug:
        msg: " The dbname is {{dbname}}"

    - debug:
        var: dbuser

    - name: Install mariadb-server
      ansible.builtin.yum:
        name: mariadb-server
        state: present

    - name: Install pymysql
      ansible.builtin.yum:
        name: python3-PyMySQL
        state: present

    - name: Start mariadb service
      ansible.builtin.service:
        name: mariadb
        state: started
        enabled: yes

    - name: Create a new database

```

```
community.mysql.mysql_db:  
  name: "{{dbname}}"  
  state: present  
  login_unix_socket: /var/lib/mysql/mysql.sock  
  
- name: Create database  
  community.mysql.mysql_user:  
    name: "{{dbuser}}"  
    password: "{{dbpass}}"  
    priv: '*.*:ALL'  
    state: present  
    login_unix_socket: /var/lib/mysql/mysql.sock
```

```
ubuntu@ip-172-31-12-170: ~/ playbook1.yml + | v
---
- name: DBserver setup
  hosts: dbservers
  become: yes
  vars:
    dbname: ansible
    dbuser: demouser
    dbpass: demo
  tasks:
    - debug:
        msg: " The dbname is {{dbname}}"

    - debug:
        var: dbuser

    - name: Install mariadb-server
      ansible.builtin.yum:
        name: mariadb-server
        state: present

    - name: Install pymysql
      ansible.builtin.yum:
        name: python3-PyMySQL
        state: present

    - name: Start mariadb service
      ansible.builtin.service:
        name: mariadb
        state: started
        enabled: yes

    - name: Create a new database
      community.mysql.mysql_db:
        name: "{{dbname}}"
        state: present
        login_unix_socket: /var/lib/mysql/mysql.sock

    - name: Create database
      community.mysql.mysql_user:
        name: "{{dbuser}}"
        password: "{{dbpass}}"
        priv: '*.*:ALL'
        state: present
        login_unix_socket: /var/lib/mysql/mysql.sock
```

7. Now just run again the ansible playbook command.

```
ansible-playbook -i inventory demodb.yaml
```

```
ubuntu@ip-172-31-12-179:~/demodirectory/exc$ ansible-playbook -i inventory demodb.yaml
PLAY [DBserver setup] ****
TASK [Gathering Facts] ****
ok: [demodb01]
TASK [debug] ****
ok: [demodb01] => {
    "msg": "The dbname is ansible"
}

TASK [debug] ****
ok: [demodb01] => {
    "dbuser": "demousr"
}

TASK [Install mariadb-server] ****
ok: [demodb01]

TASK [Install pymysql] ****
ok: [demodb01]

TASK [Start mariadb service] ****
ok: [demodb01]

TASK [Create a new database] ****
ok: [demodb01]

TASK [Create database] ****
[WARNING]: Option column_case_sensitive is not provided. The default is now false, so the column's name will be uppercased. The default will be changed to true in community.mysql 4.0.0.
ok: [demodb01]

PLAY RECAP ****
demodb01 : ok=8    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

ubuntu@ip-172-31-12-179:~/demodirectory/exc$ |
```

8. Now you can also use this YAML code to see a different output.

```
---
- name: DBserver setup
  hosts: dbservers
  become: yes
  vars:
    dbname: ansible
    dbuser: demousr
    dbpass: demo
  tasks:
    - debug:
        msg: " The dbname is {{dbname}}"

    - debug:
        var: dbuser

    - name: Install mariadb-server
      ansible.builtin.yum:
        name: mariadb-server
        state: present

    - name: Install pymysql
      ansible.builtin.yum:
        name: python3-PyMySQL
        state: present

    - name: Start mariadb service
      ansible.builtin.service:
```

```
name: mariadb
state: started
enabled: yes

- name: Create a new database
  community.mysql.mysql_db:
    name: "{{dbname}}"
    state: present
    login_unix_socket: /var/lib/mysql/mysql.sock

- name: Create database
  community.mysql.mysql_user:
    name: "{{dbuser}}"
    password: "{{dbpass}}"
    priv: '*.*:ALL'
    state: present
    login_unix_socket: /var/lib/mysql/mysql.sock
  register: dataoutput

- name: print dataoutput variable
  debug:
    var: dataoutput
```

```
[root] ubuntu@ip-172-31-12-170: ~/ | + | - | ~
-----
- name: DBserver setup
  hosts: dbservers
  become: yes
  vars:
    dbname: ansible
    dbuser: demousr
    dbpass: demo
  tasks:
    - debug:
        msg: " The dbname is {{dbname}}"

    - debug:
        var: dbuser

    - name: Install mariadb-server
      ansible.builtin.yum:
        name: mariadb-server
        state: present

    - name: Install pymysql
      ansible.builtin.yum:
        name: python3-PyMySQL
        state: present

    - name: Start mariadb service
      ansible.builtin.service:
        name: mariadb
        state: started
        enabled: yes

    - name: Create a new database
      community.mysql.mysql_db:
        name: "{{dbname}}"
        state: present
        login_unix_socket: /var/lib/mysql/mysql.sock

    - name: Create database
      community.mysql.mysql_user:
        name: "{{dbuser}}"
        password: "{{dbpass}}"
        priv: '*.*:ALL'
        state: present
        login_unix_socket: /var/lib/mysql/mysql.sock
      register: dataoutput

    - name: print dataoutput variable
      debug:
        var: dataoutput
~
"demodb.yaml" 49L, 1073B
```

9. Then just run again the ansible playbook command.

```
ansible-playbook -i inventory demodb.yaml
```

```
ubuntu@ip-172-31-12-170:/demodirectory/exc$ ansible-playbook -i inventory demodb.yaml
PLAY [Observer setup] ****
TASK [Gathering Facts] ****
ok: [demodb01]
TASK [debug] ****
ok: [demodb01] => {
    "msg": "The dbname is ansible"
}
TASK [debug] ****
ok: [demodb01] => {
    "dbuser": "demouser"
}
TASK [Install mariadb-server] ****
ok: [demodb01]
TASK [Install pymysql] ****
ok: [demodb01]
TASK [Start mariadb service] ****
ok: [demodb01]
TASK [Create a new database] ****
ok: [demodb01]
TASK [Create database] ****
[WARNING]: Option column_case_sensitive is not provided. The default is now false, so the column's name will be uppercased. The default will be changed to true in community.mysql 4.0.0.
ok: [demodb01]
TASK [Print dataoutput variable] ****
ok: [demodb01] => {
    "dataoutput": {
        "changed": false,
        "failed": false,
        "msg": "User unchanged",
        "password_changed": false,
        "user": "*****user",
        "warnings": [
            "Option column.case_sensitive is not provided. The default is now false, so the column's name will be uppercased. The default will be changed to true in community.mysql 4.0.0."
        ]
    }
}
PLAY RECAP ****
demodb01 : ok=9    changed=0    unreachable=0    failed=0    skipped=0    rescued=0    ignored=0
```