Kapitel 1

Refactoring MySQL Rolle

```
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /ansible.cfg B03800_05_code/ansible.cfg
--- B03800_03_code/projects/ansible.cfg 1970-01-01 01:00:00.000000000
  +0100
+++ B03800_05_code/ansible.cfg 2016-03-14 20:54:56.319447127 +0100
@@ -0,0 +1,3 @@
+# ansible.cfg
+# http://docs.ansible.com/ansible/intro_configuration.html#hash-
   behaviour
+hash_behaviour=merge
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /db.yml B03800_05_code/db.yml
--- B03800_03_code/projects/db.yml 2016-03-07 21:56:50.053304805 +0100
+++ B03800_05_code/db.yml 2016-03-14 21:03:16.000000000 +0100
@@ -5,8 +5,12 @@
  remote_user: vagrant
  sudo: yes
  roles:
     - { role: mysql, mysql_bind: "{{ ansible_eth1.ipv4.address }}" }
     - { role: mysql }
  vars:
   mysql:
      server: true
      config:
        bind: "{{ ansible_eth1.ipv4.address }}"
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /roles/mysql/defaults/main.yml B03800_05_code/roles/mysql/defaults/
--- B03800_03_code/projects/roles/mysql/defaults/main.yml 2016-03-07
   21:56:50.057304804 +0100
```

```
+++ B03800_05_code/roles/mysql/defaults/main.yml
                                                    2016-03-07
   21:56:50.069304804 +0100
@@ -1,10 +1,16 @@
-mysql_user: mysql
-mysql port: 3306
-mysql_datadir: /var/lib/mysql
-mysql_bind: 127.0.0.1
-mysql_pkg: mysql-server
-mysql_pid: /var/run/mysqld/mysqld.pid
-mysql_socket: /var/run/mysqld/mysqld.sock
-mysql_cnfpath: /etc/mysql/my.cnf
-mysql_service: mysql
\ No newline at end of file
+mysql:
+ config:
+
   user: mysql
   port: 3306
    datadir: /var/lib/mysql
   bind: 127.0.0.1
+
   pid: /var/run/mysqld/mysqld.pid
    socket: /var/run/mysqld/mysqld.sock
   cnfpath: /etc/mysql/my.cnf
+ service: mysql
 pkg:
+
   server: mysql-server
+
   client: mysql-client
    python: python-mysqldb
+ server: false
\ No newline at end of file
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /roles/mysql/handlers/main.yml B03800_05_code/roles/mysql/handlers/
  main.yml
--- B03800_03_code/projects/roles/mysql/handlers/main.yml
                                                            2016-03-07
   21:56:50.057304804 +0100
+++ B03800_05_code/roles/mysql/handlers/main.yml
                                                    2016-03-07
   21:56:50.069304804 +0100
00 -1,5 +1,5 00
# handlers file for mysql
- name: restart mysql service
 service: name="{{ mysql_service }}" state=restarted
+ service: name="{{ mysql['service'] }}" state=restarted
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /roles/mysql/tasks/configure.yml B03800_05_code/roles/mysql/tasks/
   configure.yml
--- B03800_03_code/projects/roles/mysql/tasks/configure.yml 2016-03-07
   21:56:50.057304804 +0100
+++ B03800_05_code/roles/mysql/tasks/configure.yml 2016-03-14
   20:47:19.00000000 +0100
```

```
00 -1,7 +1,7 00
# filename: roles/mysql/tasks/configure.yml
 - name: create mysql config
  template: src="my.cnf.j2" dest="{{ mysql_cnfpath }}" mode=0644
  template: src="my.cnf.j2" dest="{{ mysql['config']['cnfpath'] }}"
  mode=0644
   notify:
     - restart mysql service
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /roles/mysql/tasks/install_Debian.yml B03800_05_code/roles/mysql/
   tasks/install_Debian.yml
--- B03800_03_code/projects/roles/mysql/tasks/install_Debian.yml
   2016-03-07 21:56:50.057304804 +0100
+++ B03800_05_code/roles/mysql/tasks/install_Debian.yml 2016-03-07
   21:56:50.069304804 +0100
@@ -1,8 +1,17 @@
# filename: roles/mysql/tasks/install_Debian.yml
  - name: install mysql client
+
    apt:
+
      name: "{{ mysql['pkg']['client'] }}"
+
      update_cache: yes
+
  - name: install mysql server
    apt:
      name: "{{ mysql_pkg }}"
      name: "{{ mysql['pkg']['server'] }}"
      update_cache: yes
    when: mysql.server
 - name: install mysql python binding
    apt:
      name: "{{ mysql['pkg']['python'] }}"
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /roles/mysql/tasks/install_RedHat.yml B03800_05_code/roles/mysql/
  tasks/install_RedHat.yml
--- B03800_03_code/projects/roles/mysql/tasks/install_RedHat.yml
   2016-03-07 21:56:50.057304804 +0100
+++ B03800_05_code/roles/mysql/tasks/install_RedHat.yml 2016-03-07
   21:56:50.069304804 +0100
00 -1,9 +1,10 00
# filename: roles/mysql/tasks/install_RedHat.yml
- name: install mysql server
  yum:
    name: "{{ mysql_pkg }}"
+ yum:
+ name: "{{ mysql['pkg']['server'] }}"
```

```
+ when: mysql.server
-- name: install libselinux-python
    name: "libselinux-python"
+- name: install mysql python binding
    name: "{{ mysql['pkg']['python'] }}"
/roles/mysql/tasks/main.yml B03800_05_code/roles/mysql/tasks/main.yml
--- B03800_03_code/projects/roles/mysql/tasks/main.yml 2016-03-07
   21:56:50.057304804 +0100
+++ B03800_05_code/roles/mysql/tasks/main.yml 2016-03-07
   21:56:50.069304804 +0100
@@ -13,4 +13,7 @@
  when: ansible_os_family == 'Debian'
- include: configure.yml
+ when: mysql.server
+
 - include: service.yml
+ when: mysql.server
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /roles/mysql/tasks/service.yml B03800_05_code/roles/mysql/tasks/
   service.yml
--- B03800_03_code/projects/roles/mysql/tasks/service.yml
                                                         2016-03-07
   21:56:50.057304804 +0100
+++ B03800_05_code/roles/mysql/tasks/service.yml 2016-03-07
   21:56:50.069304804 +0100
00 - 1, 4 + 1, 6 00
# filename: roles/mysql/tasks/service.yml
 - name: start mysql server
  service: name="{{ mysql_service }}" state=started
   service:
     name: "{{ mysql['service'] }}"
     state: started
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /roles/mysql/templates/my.cnf.j2 B03800_05_code/roles/mysql/templates
   /my.cnf.j2
--- B03800_03_code/projects/roles/mysql/templates/my.cnf.j2 2016-03-07
   21:56:50.057304804 +0100
+++ B03800_05_code/roles/mysql/templates/my.cnf.j2 2016-03-07
   21:56:50.069304804 +0100
00 -3,10 +3,20 00
# filename: roles/mysql/templates/my.cnf.j2
[mysqld]
            = {{ mysql_user | default("mysql") }}
-user
            = {{ mysql_pid }}
-pid-file
         = {{ mysql_socket }}
```

```
= {{ mysql_port }}
-port
-datadir
               = {{ mysql_datadir }}
-bind-address = {{ mysql_bind }}
+user = {{ mysql['config']['user'] | default("mysql") }}
+{% if mysql.config.pid is defined %}
          = {{ mysql['config']['pid'] }}
+pid-file
+{% endif %}
+{% if mysql.config.pid is defined %}
+socket
          = {{ mysql['config']['socket'] }}
+{% endif %}
+{% if mysql.config.pid is defined %}
            = {{ mysql['config']['port'] }}
+{% endif %}
+{% if mysql.config.pid is defined %}
+datadir
                = {{ mysql['config']['datadir'] }}
+{% endif %}
+{% if mysql.config.pid is defined %}
+bind-address = {{ mysql['config']['bind'] }}
+{% endif %}
/roles/mysql/vars/RedHat.yml B03800_05_code/roles/mysql/vars/RedHat.
  yml
--- B03800_03_code/projects/roles/mysql/vars/RedHat.yml 2016-03-08
  20:18:14.289339999 +0100
+++ B03800_05_code/roles/mysql/vars/RedHat.yml 2016-03-14
  21:04:59.00000000 +0100
00 -1,8 +1,11 00
# RedHat Specific Configs.
# roles/mysql/vars/RedHat.yml
-mysql_socket: /var/lib/mysql/mysql.sock
-mysql_cnfpath: /etc/my.cnf.d/my.cnf
-mysql_service: mariadb
-mysql_bind: 0.0.0.0
-mysql_pkg: mariadb-server
+mysql:
+ config:
    socket: /var/lib/mysql/mysql.sock
   cnfpath: /etc/my.cnf
    bind: 0.0.0.0
+ pkg:
    python: MySQL-python
+ service: mysqld
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
  /roles/nginx/templates/index.html.j2 B03800_05_code/roles/nginx/
  templates/index.html.j2
--- B03800_03_code/projects/roles/nginx/templates/index.html.j2
  1970-01-01 01:00:00.000000000 +0100
+++ B03800_05_code/roles/nginx/templates/index.html.j2 2016-03-07
  21:56:50.073304804 +0100
```

```
@@ -0,0 +1,5 @@
+<html>
+ <body>
+ <h1> Welcome to {{ item.value.name }} </h1>
+ </body>
+</html>
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /roles/wordpress/templates/wp-config.php.j2 B03800_05_code/roles/
   wordpress/templates/wp-config.php.j2
--- B03800_03_code/projects/roles/wordpress/templates/wp-config.php.j2
   2016-03-14 20:17:14.255352326 +0100
+++ B03800_05_code/roles/wordpress/templates/wp-config.php.j2
   2016-03-07 21:56:50.073304804 +0100
00 -1,6 +1,6 00
<?php
-define('DB_NAME', 'wp_dbname');
-define('DB_USER', 'wp_dbuser');
+define('DB_NAME', '{{ wp_dbname }}');
+define('DB_USER', '{{ wp_dbuser }}');
define('DB_PASSWORD', '{{ wp_dbpass }}');
define('DB_HOST', '{{ wp_dbhost }}');
define('DB_CHARSET', 'utf8');
diff -U 3 -H -d -r -N -x '*.diff' -x '*meta*' -- B03800_03_code/projects
   /www.yml B03800_05_code/www.yml
--- B03800_03_code/projects/www.yml 2016-03-14 20:05:34.995323021 +0100
+++ B03800_05_code/www.yml 2016-03-14 21:03:16.000000000 +0100
00 -5,7 +5,7 00
  pre_tasks:
     - shell: echo 'I": Beginning to configure web server..'
  roles:
      - { role: nginx, when: ansible_os_family == 'Debian' }
     - wordpress
  post_tasks:
      - shell: echo 'I": Done configuring nginx web server...'
```