POC1 : LAMP Through Ansible

Step 1: Create Directory Structure as follows-

-lamp

|-----lamp\_role

|----handlers

|----tasks

|----templates

|----vars

|----files

|----defaults

Step 2: In “tasks” folder create “install.yml” file and write following content in it.

For installing LAMP we need to install Apache, PHP, Mysql and this playbook does the same.

|  |
| --- |
| *---*  *- name: 1. install Apache*  *apt: name=apache2 state=present*  *- name: 2. install PHP and PHP module for Apache and Mysql*  *apt: name={{item}} state=present*  *with\_items:*   * *php5* * *libapache2-mod-php5* * *php5-mcrypt* * *php5-mysql*   *- name: 3. start Apache*  *service: name=apache2 state=running enabled=yes*  *- name: MySQL | Make sure the MySql packages are installed*  *apt: name={{items}} state=present*  *with\_items:*   * *mysql-server* * *mysql-client* * *python-mysqldb*   *- name: MySQL | Ensure MySQL is running*  *service: name=mysql state= started* |

Step 3: In “defaults” folder create “main.yml” file and write following content in it.

This file consist of some default values for some variables. We have given file name as main.yml so that when we call role, the content of this file should automatically get loaded.

|  |
| --- |
| *---*  # Basic settings  mysql\_root\_password: 'password'  mysql\_language: '/usr/share/mysql/'  # List of databases to be created  mysql\_databases: [demo]  # List of users to be created  mysql\_users: [amol] |

Step 4: In “tasks” folder create “users.yml” file and write following content in it.

This file manages users for MySql. It creates users mentioned in mysql\_users array

|  |
| --- |
| *---*  *- name: MySQL | Make sure the MySQL users are present*  *mysql\_user: name={{item}} password=password priv=\*.\*:ALL state=present host=localhost*  *with\_items: mysql\_users*  *when: mysql\_users|length > 0* |

Step 5: In “tasks” folder create “databases.yml” file and write following content in it.

This file manages databases for MySql. It creates databases mentioned in mysql\_databases array

|  |
| --- |
| *---*  *- name: MySQL | Make sure the MySQL databases are present*  *mysql\_db:*  *name: "{{ item}}"*  *state: present*  *with\_items: mysql\_databases*  *when: mysql\_databases|length > 0*  - name: MySQL | copy sample database  copy: src=dump.sql dest=/tmp/dump.sql    - name: MySQL | insert sample data  mysql\_db: name=demo state=import target=/tmp/dump.sql |

Step 6: In “tasks” folder create “secure.yml” file and write following content in it.

This file sets password for root user of MySql and configure it for easy access, removes anonymous users and test database and execute sql script to dump data in particular database.

|  |
| --- |
| *---*  *- name: MySQL | Set the root password.*  *mysql\_user:*  *user: amol*  *host: localhost*  *password: "{{mysql\_root\_password}}"*  *- name: MySQL | Configure MySql for easy access as root user*  *template:*  *src: root\_dot\_my.cnf.j2*  *dest: /home/amol/.my.cnf*  *owner: amol*  *group: amol*  *mode: 0600*  *- name: MySQL | Remove anonymous MySQL server user*  *mysql\_user:*  *name: ""*  *host: "{{item}}"*  *state: absent*  *with\_items:*  *- localhost*  *- name: MySQL | Remove the MySQL test database*  *mysql\_db:*  *name: test*  *state: absent* |

Step 7: In “tasks” folder create “deploy.yml” file and write following content in it.

This file deploys your PHP project to the Document root of remote host

|  |
| --- |
| *---*  *- name: Deploy PHP project*  *copy: src=/var/www/html/project\_name dest=/var/www/html/* |

Step 8: In “tasks” folder create “main.yml” file and write following content in it.

|  |
| --- |
| *---*  *- include: install.yml*  *- include: secure.yml*  *- include: databases.yml*  *- include: users.yml*  *- include: deploy.yml* |

Step 9: In “handlers” folder create “main.yml” file and write following content in it.

|  |
| --- |
| *---*  *- name: restart mysql*  *service:*  *name: mysql*  *state: restarted* |

Step 10: In “templates” folder create “my\_cnf.j2” file and write following content in it.

|  |
| --- |
| *[client]*  *user=amol*  *password={{ mysql\_root\_password }}* |

Step 11: In “files” folder create “dump.sql” file and write following content in it.

|  |
| --- |
| *--*  *-- Database: `demo`*  *--*  *--*  *-- Table structure for table `user`*  *--*  *CREATE TABLE IF NOT EXISTS `user` (*  *`id` int(11) NOT NULL AUTO\_INCREMENT,*  *`name` varchar(300) NOT NULL,*  *`lastname` varchar(300) NOT NULL,*  *`department` varchar(300) NOT NULL,*  *`username` varchar(300) NOT NULL,*  *`password` varchar(300) NOT NULL,*  *PRIMARY KEY (`id`)*  *) ENGINE=MyISAM DEFAULT CHARSET=latin1 AUTO\_INCREMENT=3 ;*  *--*  *-- Dumping data for table `user`*  *--*  *INSERT INTO `user` (`id`, `name`, `lastname`, `department`, `username`, `password`) VALUES*  *(1, 'argie', 'policarpio', 'OBD', 'admin', 'admin'),*  *(2, 'dsfdsds', 'sdsds', 'OGM', 'a', 'a');* |

Step 12: In “lamp” folder create “lamp.yml” file and write following content in it.

|  |
| --- |
| *---*  *- hosts: 172.27.59.17*  *Remote\_user: amol*  *sudo: yes*  *roles:*   * *lamp\_role* |

Step 13: Now to install LAMP using above code, execute following command

ansible-playbook lamp.yml - -ask-sudo-pass