

Ansible contd

Activity: Installing tomcat on ubuntu 22.04 contd

- After extracting tomcat create a symbolic link

```
sudo ln -s /opt/tomcat/apache-tomcat-{{VERSION}} /opt/tomcat/latest
```

- [Refer Here](#) for the changes done to implement symbolic link and recursively change ownership
- We have written tasks in ansible to automate the rest

```
---
- name: install tomcat 10 on ubuntu
  hosts: ubuntu
  become: yes
  tasks:
    - name: update packages and install java
      ansible.builtin.apt:
        name: "{{ java_package }}"
        update_cache: yes
        state: present
    - name: create a group tomcat
      ansible.builtin.group:
        name: "{{ group_name }}"
        state: present
    - name: create a system user tomcat
      ansible.builtin.user:
        name: "{{ user_name }}"
        create_home: true
        group: "{{ group_name }}"
        home: "{{ home_dir }}"
        shell: "{{ default_shell }}"
        state: present
    - name: download and extract tomcat
      ansible.builtin.unarchive:
        src: "https://www-eu.apache.org/dist/tomcat/tomcat-10/v{{ tomcat_version }}
        }}/bin/apache-tomcat-{{ tomcat_version }}.tar.gz"
        dest: "{{ home_dir }}"
        owner: "{{ user_name }}"
        group: "{{ group_name }}"
        remote_src: yes
    - name: create a symbolic link
      ansible.builtin.file:
        src: "{{ home_dir }}/apache-tomcat-{{ tomcat_version }}"
        dest: "{{ home_dir }}/latest"
        owner: "{{ user_name }}"
        group: "{{ group_name }}"
        state: link
    - name: change ownership of the directory
```

```

ansible.builtin.file:
  path: "{{ home_dir }}"
  state: directory
  recurse: yes
  owner: "{{ user_name }}"
  group: "{{ group_name }}"
- name: give execute permissions to shell files
  ansible.builtin.shell:
    cmd: "chmod +x /opt/tomcat/latest/bin/*.sh"
    executable: "/bin/bash"
- name: create a service file
  ansible.builtin.copy:
    src: tomcat.service
    dest: /etc/systemd/system/tomcat.service
- name: enable and start tomcat
  ansible.builtin.systemd:
    name: tomcat.service
    enabled: yes
    state: started
- name: update users
  ansible.builtin.copy:
    src: tomcat-users.xml
    dest: "{{ home_dir }}/latest/conf/tomcat-users.xml"
- name: update manager context
  ansible.builtin.copy:
    src: manager_context.xml
    dest: "{{ home_dir }}/latest/webapps/manager/META-INF/context.xml"
- name: update host manager context
  ansible.builtin.copy:
    src: hostmanager_context.xml
    dest: "{{ home_dir }}/latest/webapps/host-manager/META-INF/context.xml"
- name: restart tomcat
  ansible.builtin.systemd:
    name: tomcat.service
    state: restarted

```

- [Refer Here](#) for the other files

- Every execution of ansible playbook is leading to 6 changes

```
TASK [download and extract tomcat] *****
changed: [node-2]

TASK [create a symbolic link] *****
ok: [node-2]

TASK [change ownership of the directory] *****
ok: [node-2]

TASK [give execute permissions to shell files] *****
changed: [node-2]

TASK [create a service file] *****
ok: [node-2]

TASK [enable and start tomcat] *****
ok: [node-2]

TASK [update users] *****
changed: [node-2]

TASK [update manager context] *****
changed: [node-2]

TASK [update host manager context] *****
changed: [node-2]

TASK [restart tomcat] *****
changed: [node-2]

PLAY RECAP *****
node-2          : ok=14  changed=6  unreachable=0    failed=0    skipped=0    rescued=0    ignored=0

devops@node-1:~/AnsibleZone/july24/playbooks/tomcat$ |
```

- Next steps:
 - conditionals
 - handlers
 - loops
 - roles
 - templates
 - dotnet example