---  
- name: Install nginx and config  
  hosts: web  
  become: yes

  tasks:  
    - name: Install nginx  
      ansible.builtin.package:  
        name: nginx  
        state: present  
        update\_cache: yes  
      register: install\_result  
      ignore\_errors: yes

    - name: Show success message  
      ansible.builtin.debug:  
        msg: "Nginx installed successfully"  
      when: install\_result is succeeded

    - name: Show failed message  
      ansible.builtin.debug:  
        msg: "Nginx installation failed"  
      when: install\_result is failed

    - name: Start and enable nginx  
      ansible.builtin.service:  
        name: nginx  
        state: started  
        enabled: yes  
      when: install\_result is succeeded

    - name: Configure virtual host  
      ansible.builtin.template:  
        src: nginx.vhost.j2  
        dest: /etc/nginx/conf.d/my\_site.conf  
      notify: reload nginx  
      when:  
        - install\_result is succeeded  
        - ansible\_facts['os\_family'] in ['RedHat', 'Debian']

  handlers:  
   - name: reload nginx  
     ansible.builtin.service:  
       name: nginx  
       state: restarted

2.   
---  
- name: Firewall config  
  hosts: web  
  become: true  
  gather\_facts: true  
  vars:  
    firewall\_ports:  
      - 443  
      - 80  
      - 22  
  tasks:  
    - name: add os specific port to RedHat  
      set\_fact:  
        firewall\_ports: "{{ firewall\_ports + [8080] }}"  
      when: ansible\_facts['os\_family'] == 'RedHat'  
    - name: add os specific port to Debian  
      set\_fact:  
        firewall\_ports: "{{ firewall\_ports + [8080] }}"  
      when: ansible\_facts['os\_family'] == 'Debian'  
    - name: print firewall  
      debug:  
        msg: "firewall ports: {{ item }}"  
      loop: "{{ firewall\_ports }}"

Q3.   
sudo lsof -i:80  
make one file apache2.conf

---  
- name: install apache  
  hosts: web  
  become: yes  
  tasks:  
    - name: install apache  
      apt:  
        name: apache2  
        state: present  
        update\_cache: yes  
    - name: conf apache  
      template:  
        src: apache2.conf  
        dest: /etc/apache2/apache2.conf  
      notify: restart apache  
  handlers:  
    - name: restart apache  
      service:  
        name: apache2

Q5.  
---  
- name: manager user  
  hosts: web  
  become: yes  
  vars:  
    users\_to\_manage:  
      - name: juhi  
        state: present  
        groups: ["sudo"]  
      - name: juhi1  
        state: present  
        groups: [ "sudo" ]  
      - name: bye  
        state: present

  tasks:  
    - name: manage users  
      user:  
        name: "{{ item.name }}"  
        state: "{{ item.state }}"  
        groups: "{{ item.groups | default(omit)}}"  
      loop: "{{ users\_to\_manage }}"

Q6.  
---  
- name: trying to install a missing package  
  hosts: web  
  become: true  
  tasks:  
    - name: install package  
      ansible.builtin.package:  
        name: nonexisted-package  
        state: present  
      register: install\_result  
      ignore\_errors: yes  
  
    - name: print a message  
      debug:  
        msg: "installation failed : {{ install\_result.msg }}"  
      when: install\_result.failed