**1->Save the playbook:**

**2->Save the playbook in a file with a .yml extension, for example, install\_opennms.yml.**

**---**

**- name: Install and Configure OpenNMS on Ubuntu 22.04**

**hosts: demo**

**become: yes**

**vars:**

**admin\_password: "admin" # Replace with your desired OpenNMS admin password**

**tasks:**

**- name: Update system**

**apt:**

**update\_cache: yes**

**- name: Set Timezone to Asia/Kolkata**

**become: yes**

**command: timedatectl set-timezone Asia/Kolkata**

**- name: Install required packages**

**apt:**

**name: "{{ item }}"**

**state: present**

**with\_items:**

**- openjdk-8-jdk**

**- postgresql**

**- postgresql-contrib**

**- snmp**

**- python3-pip**

**- libpq-dev**

**- chrony**

**- name: Install Psycopg2 using pip3**

**become: yes**

**pip:**

**name: psycopg2**

**executable: pip3**

**- name: Change directory to /**

**command: /bin/true**

**args:**

**chdir: /**

**- name: Create OpenNMS database**

**postgresql\_db:**

**name: opennms**

**state: present**

**become\_user: postgres**

**- name: Create OpenNMS database user**

**postgresql\_user:**

**db: opennms**

**name: opennms**

**password: "{{ admin\_password }}"**

**role\_attr\_flags: CREATEDB,CREATEROLE,SUPERUSER**

**state: present**

**become\_user: postgres**

**- name: creating user**

**shell: |**

**cd /opt;**

**sudo -u postgres psql -c "ALTER USER postgres WITH PASSWORD '{{ admin\_password }}';"**

**- name: Add the OpenNMS repository**

**become: true**

**blockinfile:**

**path: /etc/apt/sources.list.d/opennms.list**

**create: yes**

**block: |**

**deb https://debian.opennms.org opennms-32 main**

**deb-src https://debian.opennms.org opennms-32 main**

**- name: Import OpenNMS GPG key**

**apt\_key:**

**url: 'https://debian.opennms.org/OPENNMS-GPG-KEY'**

**state: present**

**- name: Add OpenNMS APT repository**

**apt\_repository:**

**repo: 'deb https://debian.opennms.org stable main'**

**state: present**

**register: repo\_result**

**- name: Update APT package cache**

**apt:**

**update\_cache: yes**

**when: repo\_result.changed**

**- name: Install OpenNMS**

**apt:**

**name: opennms**

**state: present**

**- name: Replace opennms password**

**replace:**

**path: /usr/share/opennms/etc/opennms-datasources.xml**

**regexp: '^(.\*password=")(.\*)(".\*)$'**

**replace: '\1{{ admin\_password }}\3'**

**when: "'opennms' in lookup('file', '/usr/share/opennms/etc/opennms-datasources.xml')"**

**- name: Replace postgres password**

**replace:**

**path: /usr/share/opennms/etc/opennms-datasources.xml**

**regexp: '^(.\*password=")(.\*)(".\*)$'**

**replace: '\1{{ admin\_password }}\3'**

**when: "'postgres' in lookup('file', '/usr/share/opennms/etc/opennms-datasources.xml')"**

**- name: Persist Java environment in /usr/share/opennms/etc/java.conf**

**shell: /usr/share/opennms/bin/runjava -s**

**- name: Reload Daemon**

**systemd:**

**daemon\_reload: yes**

**- name: Import OpenNMS database schema**

**command: >**

**sudo /usr/share/opennms/bin/install -dis**

**- name: Start OpenNMS services**

**systemd:**

**name: "{{ item }}"**

**state: started**

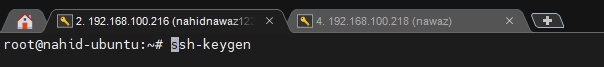
**enabled: yes**

**with\_items:**

**- opennms**

**##If you are experiencing any problems, please copy the opennms-install.yml file from this folder.**

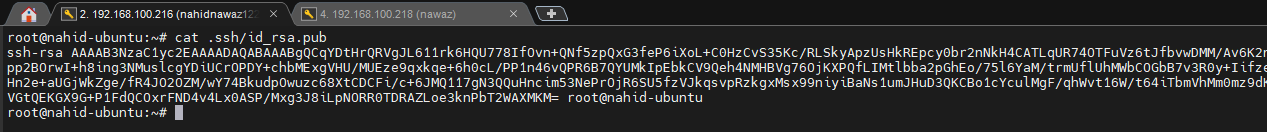
**3-> Grant ssh rights, run ssh-keygen, and input the ansible machine's public key into the host machine.**

****

**Then copy the from run**

**cd**

**cat .ssh/id\_rsa.pub**

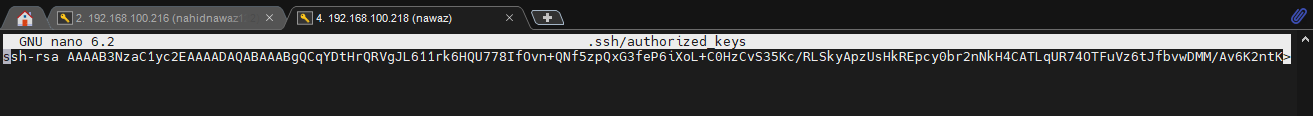
****

**4->login your host machine and run this commands.**

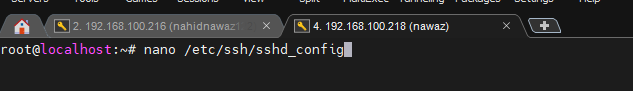
**cd**

**nano .ssh/authorized\_keys**

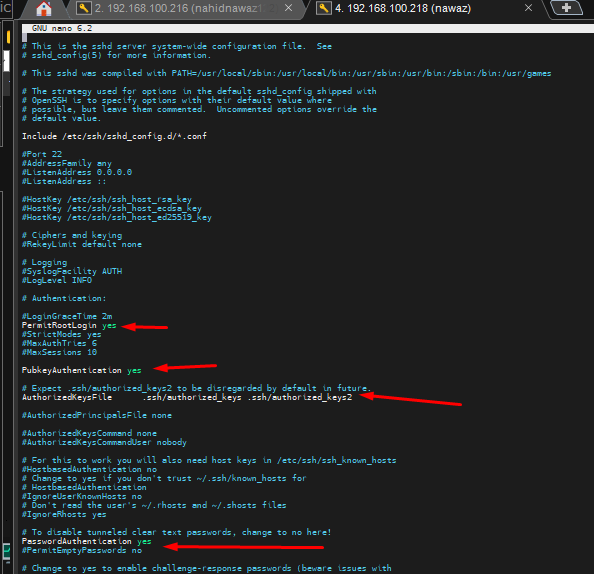
**then pest the ssh-public-key of the ansible main machine.**

****

**5-> Give ssh access for ansible-machine**

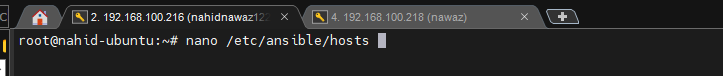
****

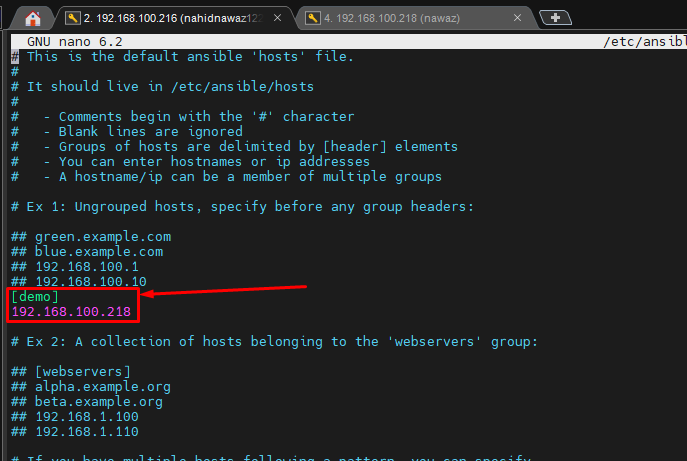
**Then uncomments the lines make changes .**

****

**6->Restart the sshd service .**

**service sshd restart**

**7 -> Create a hosts entry on the Ansible machine to find the host computer.**

**Step 5: Write some line for the host machine to listen from the group (demo) and then input one or more IP addresses.**

**8->Open a terminal and navigate to the directory where you saved the playbook. Run the following command:**

**ansible-playbook install\_opennms.yml**

**9-.Enter the OpenNMS admin password:**

**During the execution of the playbook, you'll be prompted to enter the OpenNMS admin password. This is the password for the OpenNMS user and the PostgreSQL user.**

**10->Wait for the playbook to complete:**

**The playbook will go through each task, updating the system, installing required packages, configuring PostgreSQL, adding the OpenNMS repository, installing OpenNMS, and starting the necessary services. It may take some time to complete.**

**11->Verify the installation:**

**Once the playbook completes successfully, you can verify the OpenNMS installation by accessing the OpenNMS web interface in a web browser. The default URL is usually http://localhost:8980/opennms/. Log in using the admin credentials specified in the playbook.**

**8->That's it! You've successfully installed and configured OpenNMS on your Ubuntu 22.04 machine using Ansible.**