This is specifically for Ubuntu machines:

1) Create new user

sudo adduser <user-name>

Ex. sudo adduser ansiblle

2) Give sudo privileges and also set passwordless, using command:

sudo visudo

Add the below line below the root user entry:

ansible ALL=(ALL) NOPASSWD:ALL

(here 'ansible' is the user that we created earlier)

- 3) Follow the above 1 and 2 steps for the host servers aswell.
- 4) now we need to change /etc/ssh/sshd_config in both the controller server and the host server, to allow passwordless ssh

sudo nano /etc/ssh/sshd_config

#PubkeyAuthentication yes (uncomment this line)

PasswordAuthentication no (change 'no' to 'yes')

5) Now, restart the ssh server and check the status if it is running on both controller and host

sudo systemctl restart ssh

sudo systemctl status ssh

6) Now, go to the controller server and log into the 'ansible' user

sudo su - ansible

7) From controller server, ssh into the host server

<user-name>@host-server-IP

You will be able to ssh into the host but you will be asked for a password. So, now our next task is to work on removing password while ssh.

8) To get passwordless SSH, we will generate a SSH key in the 'ansible' user of the Controller server, using the command:
ssh-keygen
Choose all the default options.
9) Now, cd into ~/.ssh
cd ~/.ssh
If you will 'ls' here, you will find the public key and other files generated. If we choose the default options while generating the key then we will see a key by the name 'id_rsa.pub'
10) Now, we will have to transfer this key from our controller to all the hosts so that we can SSH without password.
We use the below command:
ssh-copy-id -i <keyfile-name> <host-server-usename>@<host-server-ip></host-server-ip></host-server-usename></keyfile-name>
ssh-copy-id -i id_rsa.pub ansible@3.87.63.165
Similarly we run this command for all the host servers to which we want passwordless SSH.
You are good to go!
https://www.youtube.com/watch?v=8ky83_pdcPw

Installing Ansible on the Controller server (Ubuntu):

https://www.digitalocean.com/community/tutorials/how-to-install-and-configure-ansible-on-ubuntu-20-04