1. Install clean, normal (not minimal) Ubuntu 16.04 LTS Server on each host:
   a. `controller1 10.0.0.11`
   b. `controller2 10.0.0.12`
   c. `compute001 10.0.0.31`
2. On **compute001**, shrink **root** volume to make space for **cinder-volumes**
3. Configure GRUB, edit ***/etc/default/grub*** and set:
   `GRUB_CMDLINE_LINUX "net.ifnames=0 biosdevname=0"`
4. Run `update-grub`
5. Configure VLAN support:
   ```
   # echo "8021q" >> /etc/modules
   ```
6. Configure ***/etc/network/interfaces***:
   ```
   auto eth0.10
   iface eth0.10 inet static
     address 10.0.0.x # 11, 12, 31
     netmask 255.255.255.0
     dns-nameservers 8.8.8.8

   auto eth0.20
   iface eth0.20 inet manual
     up ip link set dev eth0.20 up
     down ip link set dev eth0.20 down

   auto eth0.30
   iface eth0.30 inet dhcp
   ```
7. Configure passwordless sudo for default user:
   ```
   # visudo
   openstack ALL=(ALL) NOPASSWD:ALL
   ```
8. Reboot
9. Run following commands:
   ```
   # apt update
   # apt upgrade -y
   ```
10. Create **/etc/hosts** on each node:
    ```
    …
    10.0.0.11 controller1
    10.0.0.12 controller2
    10.0.0.31 compute001
    10.0.0.101    deployment
    …
    ```
11. Reboot the system
12. Create cinder-volumes VG on selected host:
    ```
    # lvcreate -L 200GB -n cinder-vols compute001-vg
    # pvcreate /dev/compute1-vg/cinder-vols
    # vgcreate cinder-volumes /dev/compute1-vg/cinder-vols
    ```

13. On **deployment** host, login as default user (**openstack**)
14. Clone **kolla-bare-metal** repo:

    `$ git clone https://github.com/kris-at-occ/kolla-bare-metal`

15. `cd kolla-bare-metal` and verify following files:
    a. controller_setup.sh
    b. compute_setup.sh
    c. deployment_setup.sh
    d. multinode
    e. globals.yml
    f. init-runonce
    g. run-kolla.sh
16. Execute run-kolla.sh script:

    $ bash run-kolla.sh