Installing Nextflow & Docker on an Ubuntu Box

The step by step 'hard' way

1. **If necessary add a sudo user using this [tutorial](#).**
   In this example we'll use biouser
   A sudo user is one that can prefix a command with the command sudo and it will run that command with super user (su) privileges. This is like being the root user
   Note do not use the user bio since this is the same user as found in the docker container

2. **Install Docker**
   This is taken from this [page](#)
   - `sudo apt update`
   - `sudo apt install -y apt-transport-https ca-certificates curl software-properties-common`
   - `curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -`
   - `sudo add-apt-repository "deb [arch=amd64] https://download.docker.com/linux/ubuntu bionic stable"`
   - `sudo apt update`
   - `sudo apt-cache policy docker-ce`
   - `sudo apt install -y docker-ce`
   - `sudo systemctl status docker`

3. **Make user able to access docker without sudo**
   This is taken from this [page](#)
   - `sudo groupadd docker`
     # ignore the warning `groupadd: group 'docker' already exists` if it occurs
   - `sudo usermod -aG docker USERNAME`
     # USERNAME is the sudo user you are logged in as
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4. **Test Docker**
   Log out and log back in so that your group membership is re-evaluated.
   - `docker run hello-world`

5. **Pull the image containing the software dependencies for the assembly pipeline**
   - `docker pull bioinformant/ghru-assembly:1.4.3`

6. **Install Nextflow**
   - `sudo apt update`
   - `sudo apt install -y default-jre-headless graphviz`
   - `wget -qO- https://get.nextflow.io | bash`
   - `sudo mv nextflow /usr/local/bin`
   - `sudo mv .nextflow /usr/local/.nextflow`

- ○ `echo 'export NXF_HOME=/usr/local/.nextflow' >> ~/.bashrc`

7. **Test Nextflow**
   - ○ `nextflow run helloworld`

The simpler way

1. **Install ansible**
   As root user
   - ○ `apt -y update && apt-get -y upgrade && apt install -y software-properties-common && apt install -y ansible`

2. **Run ansible**
   - ○ `wget https://gitlab.com/cgps/ghru/pipelines/assembly/raw/master/docker_and _nextflow.yml`
   - ○ `ansible-playbook docker_and_nextflow.yml`

3. **There is no step 3!!**
   https://www.youtube.com/watch?v=6uXJIX50Lj8