**Install Docker Engine and Docker compose in Rasberry pi**

1. Login to Rasberry Pi using SSH. Credentials for Rasberry pi in my home  
    username:pi  
    password:raspberry
2. Refer to this [page](https://docs.docker.com/engine/) to check the installation and OS requirements on Rasberry pi.  
   OS details of my Rasberry pi  
   Text

   Description automatically generated
3. This [documentation](https://docs.docker.com/engine/install/debian/#install-from-a-package) explains 3 different installation techniques for a Docker engine, out of above 3, I used “Installing using Convenience Script”
4. To install using Convenience scripts, execute the following commands  
   *curl -fsSL https://get.docker.com -o get-docker.sh*

*sudo sh get-docker.sh*

1. After successful execution of above commands, the console looks as below  
   Text

   Description automatically generated
2. By default, Docker Daemon binds to Unix socket, instead of TCP port. Unix socket is owned by ‘root’ user. Any other user needs to use ‘*sudo’* before his command to execute Docker.  
   *What is the difference between Unix socket and TCP socket?*

*A UNIX socket is an inter-process communication mechanism that allows bidirectional data exchange between processes running on the same machine. IP sockets (especially TCP/IP sockets) are a mechanism allowing communication between processes over the network.*

1. To run Docker without root privileges, we are changing the user permissions on UNIX socket by following commands  
   “sudo chmod 666 /var/run/docker.sock”  
   ***chmod 666 file/folder means that all users can read and write but cannot execute the file/folder;***

***chmod 777 file/folder allows all actions for all users;***

***chmod 744 file/folder allows only user (owner) to do all actions; group and other users are allowed only to read.***

1. To test the docker installation, execute docker run hello-world (with out sudo). This results in text file showing that Docker installation was successful  
   Text

   Description automatically generated
2. Till this step, we have successfully installed Docker Engine on Rasberrypi, in this step, we install **Docker Compose** using following commands  
   *sudo apt-get update  
   sudo apt install docker-compose  
   docker-compose –version*
3. This step explains the docker compose plugin with Docker desktop  *sudo apt-get install docker-compose-plugin*A picture containing text

   Description automatically generated
4. Check the docker compose version using the following command  
   *docker-compose version*Text

   Description automatically generated

In case of User permissions issue, the console looks as below. Then execute step 7 again  
