docker pull node

Pulls the image from docker hub to local machine

docker run -it node

Starts interactive session with the node. This command basically starts a container from the base image

docker ps -a

it will show that the container is running from the node image we downloaded

in the above case what we have done is we have built from the base image. However in practice we want to custom the base image and build container from the custom image

docker build <path to docker file>

what it does is, it will build the custom image from the docker file

if it is in the same path then the command will be like

docker build .

docker stop <container name>

docker run -p 3000:80 6ab5a906119d

Need to mention the local port which will map to exposed image port

It is not necessary to mention EXPOSE 80 in docker file

We can expose the port using above command

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Lets say we want to make change to our node server source code.

We make the change and run the container. We will observe that the chnge is not reflected

It is because we need to rebuilt the image. Images are locked and are read only.

So, we run below command again and it creates a new image

docker build .

-Docker images are layer based. Every instruction is layered. When we rebuild any image, it fetches data from cache if no changes are made.

If one layer changes all subsequent layers will change

npm install depends on package.json and not on server.js. if we make changes to server.js, it has to run np install again

FROM node

WORKDIR /app

COPY . /app

RUN npm install

EXPOSE 80

CMD ["node", "server.js"]

so we can optimize below code like this

FROM node

WORKDIR /app

COPY package.json /app

RUN npm install

COPY . /app

EXPOSE 80

CMD ["node", "server.js"]

Now, even if we make change to source code, npm install will run before that

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docker run -p 3000:80 <image>

docker run -p 8000:80 <image>

It will run two containers on the same image.

Also, when we run the above command, we cannot interact with the terminal. We have to open a new terminal. But we don’t face the same issue with docker start command

So, docker run -> attach mode

docker start - > detatch mode

In attach mode, whatever commands we run in browser, we can view in the terminal

docker run -p 8000:80 -d <image> # it will run container in detach mode

we can attach the container again using

docker attach <container name> (or)

docker logs <container name>

To keep on listening use follow mode

docker logs -f <container name>