

If we have an docker engine setup on Linux operating system, can we run docker containers of windows/mac on the underlying docker engine?
Yes irrespective of the docker host operating system, we can run any docker containers of any platform, because always the containers are going to communicate with docker engine requesting for resources like cpu, memory, storage, i/o etc through bins/libs, where the job of talking to the underlying operating system in allocating these resources to the containers are carried by docker engine itself.

since the containers dont talk to the underlying host operating system directory and shielded through docker engine, we can run any containers of any platform on any docker engine/host.

That is the reason we have docker engines of several distributions based on operating system platform:
1. docker-desktop-windows
2. docker-desktop-linux
3. docker-desktop-mac

How do we choose the base image operating system platform while creating the docker images?
When we are packaging our own application into a docker image, we need to choose the base image platform as windows/linux based on the nature of the application. It is not dependent on which docker host machine on which we are going to run our application.

because any image of any base operating system platform can run on any docker host of any operating system.

For eg..
if we have developed an c++ program compiled to work on windows operating system platform only, then we need to take the base image as windows only since we cannot run c++ program compiled to work on windows platform on any other operating system.

similarly if we develop an java program and build the binary out of it, we can take the base image as any operating system of our choice, since java is platform independent. it purely depends on our own choice of choosing the base image operating system here.

