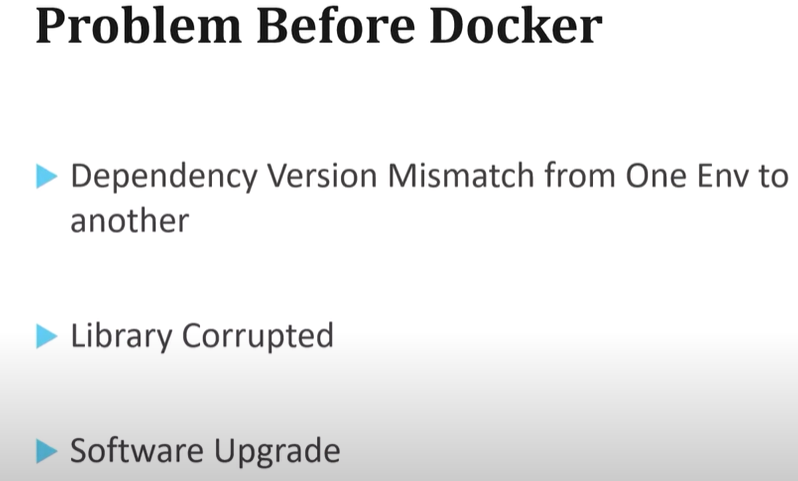
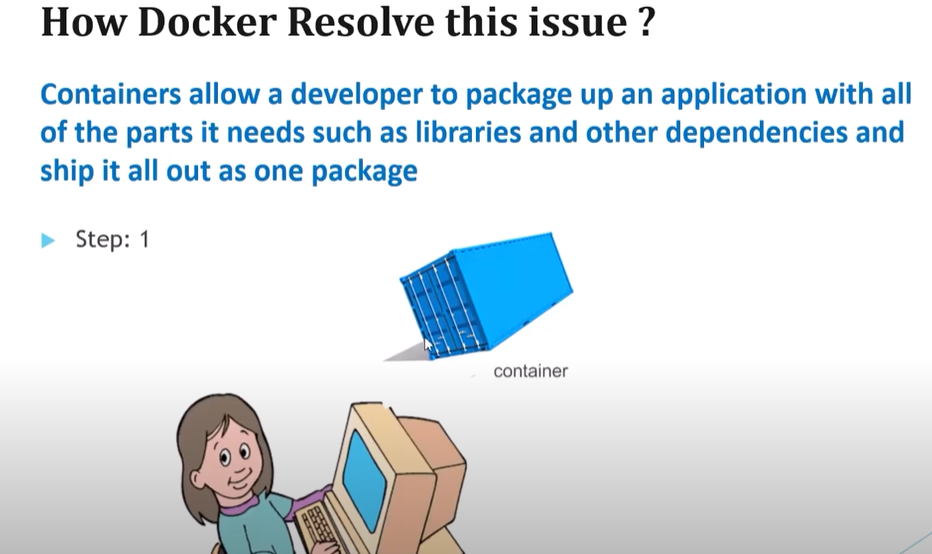


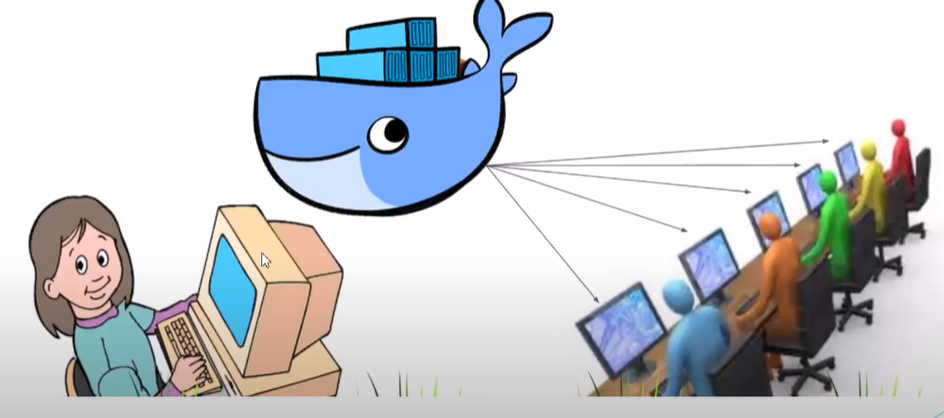
Before Docker, as a developer we have felt that some time code works well in dev environment but the same code does not work in QA or higher environment. So there could be several reasons for this kind of problems.



**How to resolve this issue?**



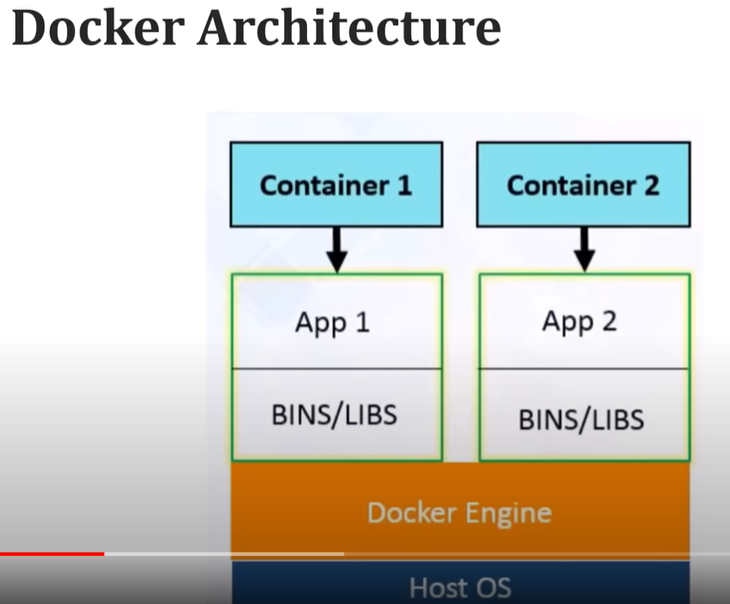
So as developer I can keep my developed code, its dependent libraries and upgraded s/w in a container and we can ship this container across the entire environment so that the entire environment can get the required dependencies from the container itself, so there would not be any mismatch or versioning issues. This way containers helps.



So here developer developed the application and placed its dependencies and latest s/w in a container and placed in Docker Engine (Ship). Now with the help of this Docker engine we can easily shipped this to different kind of environments.

This is the way Docker helps us.

Docker Architecture:

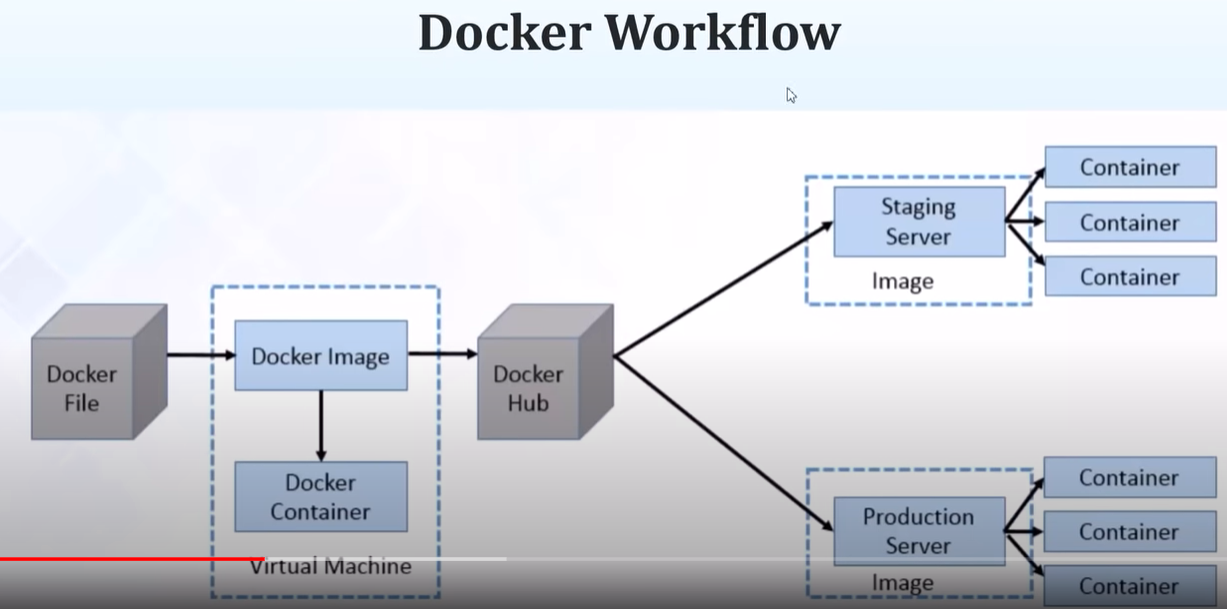


As we can see that, we have Host OS and on top of it we have Docker Engine and Docker Engine contains two containers [Container 1 & Container 2].

Container 1 contains Application 1 with all the libraries and binaries same for Container 2 contains application 2 and its libraries and binaries.

So here we can see that Docker Engines Runs on Host OS instead of guest OS (VM-Ware). And on Host OS Docker Engine takes very less memory.

**Docker Workflow:**



So as developer we have to follow some or have to perform some activity.

1. Create a Docker file As : Dockerfile
2. Then with the help of Docker command, cerate the Docker Image (it contains complete Skelton of application). Here Docker container is nothing but helping in running images
3. Once we create the Docker Image, we have to keep it in Docker Hub. Docker Hub is just like as git repository. So like we use to keep the entire artifact in the git repository and we used to pull to run the application or for any further development or modification, similarly Docker Hub can be used to keep the Docker Image (Application) and whenever we need to deploy it different environment then we can deploy it in different kind of environment. As here in the above image we can see that Docker Images are getting pulled from Docker Hub to be deployed in the Staging Server and Production Server.

**This all three steps are called Dockerization or Containerization**



GitHub: [https://github.com/Java-Techie-jt/spr...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbkc1UGRxMGFGbXozNFdYMnZJdHdiTVE5VnBYd3xBQ3Jtc0tscDRKRldUa3JNY2V5eVZBR3hDOFFQYVVrRENJUUVzRkVCSnBLNU14YkZ1T1RrQk5QMzI0bUZhcDRrcTNSNy12ejFkXzRQUkhZb1JRaVVkcjNseWZOa1NuWEZGRVFKeUJnczFfMG1CX29XamlQN0J6SQ&q=https%3A%2F%2Fgithub.com%2FJava-Techie-jt%2Fspring-jenkins)

Blogs: [https://javagyanmantra.wixsite.com/we...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbUU1dWZJQjdHQ2lQUjVhUF8ydG9FVXh3eUhJZ3xBQ3Jtc0tsbHhpMnhhbm4ta2F3U0VmNWktR0lZTllkajlnR0haSHVrdE5FOTBoQTdOdzllRXlXRlVSb2UzNC1EeEVqMU80VXlWRU9DMFk1TG9SSTA3aTRNaEJ2emJvWFFiVW5GcDkzTmg0ckxZS1pZdDYyLTNxcw&q=https%3A%2F%2Fjavagyanmantra.wixsite.com%2Fwebsite)

Facebook: [https://www.facebook.com/groups/91946...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbGdkd0RYTk16eTB0NWMtd3Z2Z0tfQzA4U0NfUXxBQ3Jtc0tuLVhNN0lDb00xNzNlaFYxdEtjTHgxQUN0WWh3dG9rem9sQzJVNHRaMHlMSnBjNnZDRGp2emljVHlNNG9iUlFmYmJ5bS1kcS1odTdkS2owWjhVVmF6Tmt2MkhVNnQzV2RwVUd1cFhTOExrZkNKby1UQQ&q=https%3A%2F%2Fwww.facebook.com%2Fgroups%2F919464521471923)

Docker Toolbox install: [https://docs.docker.com/toolbox/toolb...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbHl1VkR0eFBqalIycFNZZlZBTDlXX2JPTFlZQXxBQ3Jtc0tsM3hHM0RvZGlKclprSkFMQjVjcTdZVUlRWkk3NW1nOHhYUTZhNzN5X1FUUTNaQVBPLVVkaDFYaE1VOFJRTmg2UEZ3UV8wMzcwMWJVbGczbFJkdGNTR0ZmcG5kcGtqWGFxdnR4aEkyUVN2elR0V2xnQQ&q=https%3A%2F%2Fdocs.docker.com%2Ftoolbox%2Ftoolbox_install_windows%2F)

Link to disable Hyper-V: [https://jayvilalta.com/blog/2016/04/2...](https://www.youtube.com/redirect?event=video_description&redir_token=QUFFLUhqbktxRG51T0ZaNVA4cWxDZGJIMlFoM3VoZkxLd3xBQ3Jtc0tuZ2N2OVZ2LUdNS2w2MEpFcmhzXzFiMjFfb3BaejB1NVFsWGltd21ic3lLazJkWTFBemJGS3FFYWVwdmpoczNESTBoZ1VreE8tMUdXU3lfckdDeTdWV2pZUXVfaE1JU0k5ZW9QSWFaOGNhVUFKZFB2MA&q=https%3A%2F%2Fjayvilalta.com%2Fblog%2F2016%2F04%2F28%2Finstalling-docker-toolbox-on-windows-with-hyper-v-installed%2F)