

Docker topics for devops workshop

Brief intro about docker:

Docker is a containerization platform that allows developers to package applications and their dependencies into portable containers.

Why do we need docker? What were the issues we faced before docker.

Will give real time examples for each of these points mentioned below

1. **Dependency Management:** Applications often required specific libraries, software versions, and configurations to run correctly. Installing and managing these dependencies on different machines was challenging and often led to compatibility issues.
2. **Environment Consistency:** Developers could encounter "It works on my machine" problems, where an application ran fine on a developer's machine but failed in other environments due to differences in the operating system, software versions, or other factors.
3. **Deployment Complexity:** Deploying applications on different servers or cloud environments required manual configuration, which was time-consuming and error-prone.
4. **Isolation:** Applications running on the same server could interfere with each other, leading to conflicts and performance issues.
5. **Scaling:** Scaling applications to handle increased traffic or workload was cumbersome and required manual effort to provision new servers.

Docker architecture:

