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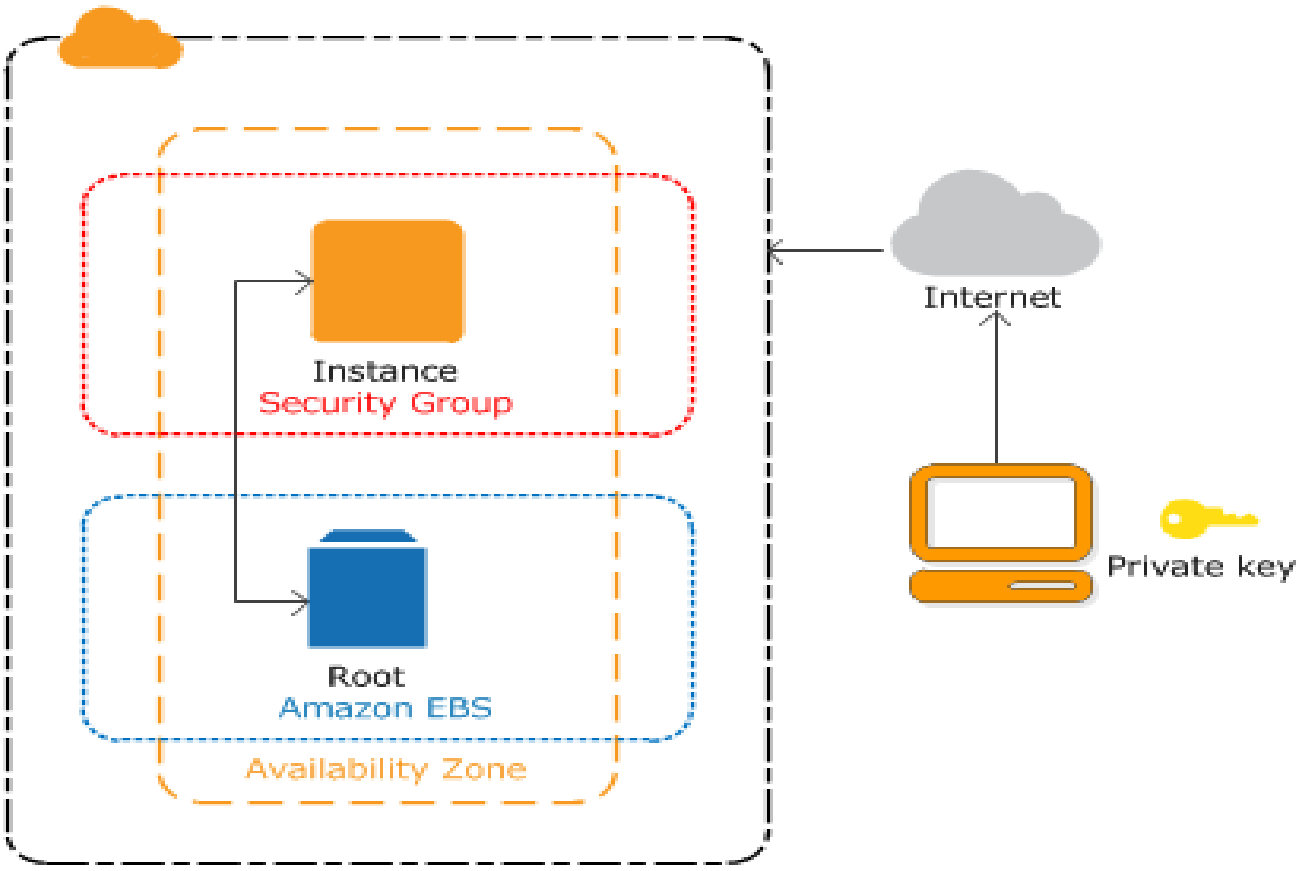
B3 S5

IAC Assignment – 1

Sprint- 5

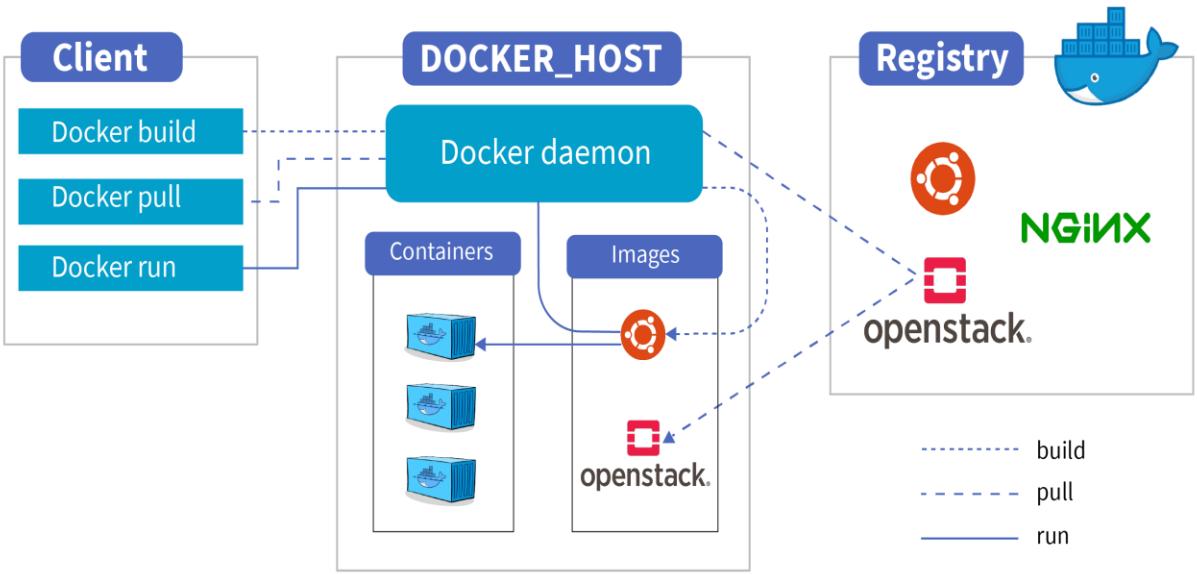
What is EC2?

Amazon Elastic Compute Cloud (Amazon EC2) provides scalable computing capacity in the Amazon Web Services (AWS) Cloud. Using Amazon EC2 eliminates your need to invest in hardware up front, so you can develop and deploy applications faster. You can use Amazon EC2 to launch as many or as few virtual servers as you need, configure security and networking, and manage storage. Amazon EC2 enables you to scale up or down to handle changes in requirements or spikes in popularity, reducing your need to forecast traffic.



What is Docker?

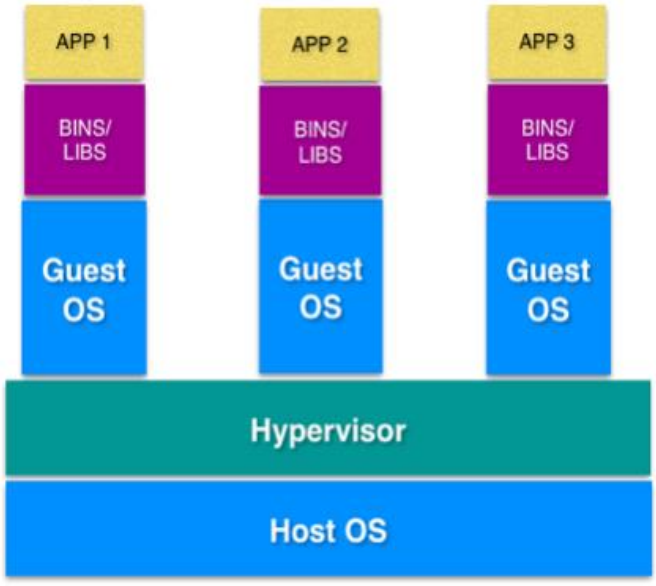
Docker is an open platform for developing, shipping, and running applications. Docker enables you to separate your applications from your infrastructure so you can deliver software quickly. With Docker, you can manage your infrastructure in the same ways you manage your applications. By taking advantage of Docker's methodologies for shipping, testing, and deploying code quickly, you can significantly reduce the delay between writing code and running it in production.



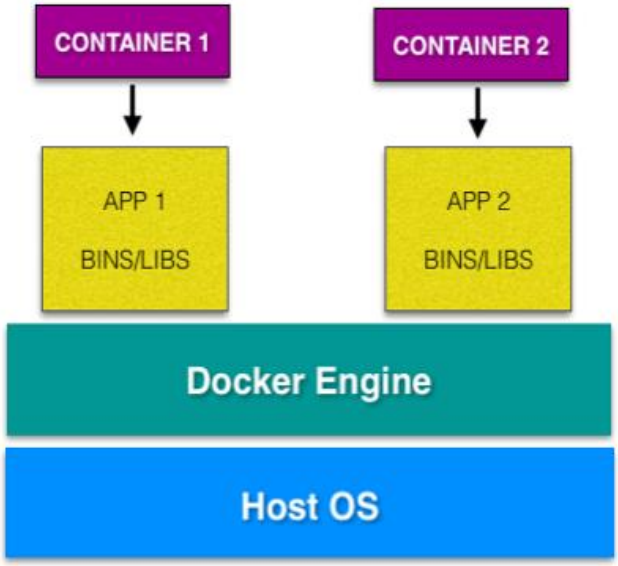
Difference Between Docker and Virtual Machine?

Docker	Virtual Machine
Docker is a software development tool and a virtualization technology that makes it easy to develop, deploy, and manage applications by using containers.	It is created to perform tasks that if otherwise performed directly on the host environment, may prove to be risky.
Root access to applications and running them with administrative	Virtual Machines are stand-alone with their kernel and security features

premises is not recommended in the case of Docker containers because containers share the host kernel.	
Docker container packages are self-contained and can run applications in any environment, and since they don't need a guest OS, they can be easily ported across different platforms.	VMs are isolated from their OS, and so they are not ported across multiple platforms without incurring compatibility issues.
where the resource usage works with the load or traffic.	Resources like CPU, memory, and I/O may not be allocated permanently to containers.



VIRTUAL MACHINE ARCHITECTURE



DOCKER ARCHITECTURE