ABSTRACT

Modern web hosting systems, within each server, manage many web applications. Virtual machine technology is used to solve heterogeneity problems (different versions of libraries or tools from several web applications). The increase in the number of web applications that must be hosted must be followed by an increase in the quality or quantity of resources, especially when the presence of high availability needs of the web services. Containerization techniques (container-based virtualization) are present as a solution and become the current trend. Docker is one of the software that adopts containerization techniques and is increasingly being applied in the web hosting environment. This paper tries to conduct a literature review of virtualization technology above, both virtual machines and containers and then summarizes the comparison. The container architecture inside Docker is the focus of this paper, including developments and advantages of Docker that have been researched and implemented in recent years. Docker makes it easy to deploy web applications along with supporting software such as web servers, database servers, dependencies and other environments to the server. Get the ease with the deployment process (spread) web applications along with supporting software such as web servers, database servers, dependencies and other environments to the server. Providing solutions for many web applications that require Docker to experiment or support students who want to do final projects on a variety of topics.

Keywords : Docker, Web Application, Container,