Viva Report	
Student Name	Harsh Menaria
Project Title	***A Secured Docker Based Lab: Enforcing end-to-end Security***
Academic Mentor Name	NA
Academic Mentor Remark	--

This project was carried out during the internship period as a part of my BCA 5th semester academic curriculum.

This project was carried out during the internship period as a part of my BCA 5th semester academic curriculum. Top 5 Key Learnings from the Internship :

1. Docker Fundamentals & Image Building	*Gained deep practical knowledge of Docker—including creating custom Docker images, writing optimized Dockerfiles, managing containers, and understanding image layers*
2. Secure Environment Deployment on AWS	*Learned how to configure and deploy a secure lab environment using AWS EC2, with static IPs, port restrictions, and IAM roles for secure access*
3. Container Networking & Isolation	*Configured private Docker networks, isolated containers using subnetting, and exposed selective ports to simulate real-world security environments.*
4. Multi-Stack Integration in Docker	*Successfully built containers for Ubuntu, Python, Java, MySQL, and a web server, and tested inter-container*

	communication and persistent volume setups
5. Security Testing & Vulnerability Analysis	*Practiced basic offensive testing using tools like Nmap, Wireshark (Dockerized), Hydra, and Metasploit to identify and understand security weaknesses in container configurations.*

Self-Declaration

I hereby declare that this project has been carried out independently by me without any external mentorship or guidance. All the work presented in this report is my own, and no mentor or project guide was assigned or involved in the completion of this project.

Harsh Menaria

harshmenaria114@gmail.com

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