**Scenario-based related to Docker**

1. Dockerfile Optimization:  
- You notice that your Docker images are too large, causing slow deployments. How would you optimize a Dockerfile to reduce the image size?

2. Container Management:  
— A container running a critical application crashes frequently. What steps would you take to troubleshoot and resolve the issue?

3. Persistent Storage:  
- You need to ensure that data within a container persists even after the container is destroyed. How would you achieve persistent storage in Docker?

4. Networking in Docker:  
- You need multiple Docker containers to communicate with each other on different hosts. How would you configure the networking for this scenario?

5. Service Scalability:  
- Your application needs to handle increased traffic during peak times. How would you set up Docker to scale your application services?

6. Security Best Practices:  
- You need to secure your Docker environment to prevent vulnerabilities. What security measures would you implement for your Docker containers?

7. CI/CD Integration:  
- You want to automate the build, test, and deployment of your Dockerized application. How would you integrate Docker with a CI/CD pipeline?

8. Handling State and Stateless Applications:  
- You have both stateful and stateless applications that need to be containerized. How would you handle the differences in deploying stateful vs. stateless applications with Docker?

9. Disaster Recovery:  
- A critical containerized service goes down, and you need to restore it as quickly as possible. What is your disaster recovery plan for Dockerized applications?

10. Orchestration with Kubernetes:  
- You need to orchestrate and manage multiple Docker containers across different environments. How would you use Kubernetes to manage and orchestrate your Docker containers?

11. Multi-Stage Builds:  
- You want to reduce build times and improve efficiency for your Docker images. How would you implement multi-stage builds in your Dockerfile?

12. Monitoring and Logging:  
- You need to set up monitoring and logging for your Docker containers to ensure smooth operations. What tools and strategies would you use to monitor and log Docker container activities?

13. Microservices Architecture:  
- You are transitioning from a monolithic application to a microservices architecture using Docker. What are the steps and considerations for containerizing and deploying microservices?

14. Docker Swarm vs. Kubernetes:  
- You need to choose between Docker Swarm and Kubernetes for container orchestration. What are the key differences between Docker Swarm and Kubernetes, and which would you choose for your project?

15. Automated Image Vulnerability Scanning:  
- Ensuring that your Docker images are free from known vulnerabilities. What tools and practices would you use to automate the scanning of Docker images for vulnerabilities?