

DevOps Interview Assignment

Testing Identification

At NXT, we help companies, customers, and applications be productive no matter where they are in the world. At NXT we value security and recognize the importance of ensuring the integrity and confidentiality of our system.

As requested we would like to Implement the following scenarios and reply with the answer within 3 days

We value your attention to **detail**, thorough testing, and ability to effectively communicate the identified issues. Feel free to reach out if you have any questions or require clarifications. Good luck!

Testing Scope

Assessment No.1

- Write a **Dockerfile** that will run the app with security best practices in mind (use any Hello World web application you want)
- To deploy your application to AWS EKS, you'll need Kubernetes YAML files. Create the **YAML** files required for deploying.
- We need to deploy the created docker to AWS EKS, which tool you use, and provide the script used.

Assessment No.2

Only **Overview plane** for a new project with these elements:

1. Design the web application: Sketch a high-level architecture diagram of a web application that demonstrates your ability to create a secure and scalable system. Include components like the front end, back end, databases, storage, caching, and networking elements.



2. Infrastructure as Code (IaC): Outline the infrastructure setup using Infrastructure as Code concepts, using tools like Terraform, AWS CloudFormation, or similar.

3. Cost optimization: Briefly discuss your strategy for optimizing resource usage and costs without compromising security and scalability.

Deliverables

1. First assignment

- A GitHub repository with any application you choose, contain
 - The requested Docker file
 - Kubernetes YAML files
 - Bash Script for AWS EKS deploying

2. Second assignment

- Any sketch showing the requested
- IaC template
- A paragraph for cost optimization
- Task Completion Confirmation: A confirmation email indicating your completion of the test task and the inclusion of the report file is to be sent or the

Evaluation:

Your submission will be evaluated based on the depth of your research, the creativity of your ideas, and the relevance of the tools and concepts you've identified to our testing challenges.

Feel free to reach out if you have any questions or need further guidance.

Disclosure Policy

Make a good faith effort to avoid privacy violations, interruption, or degradation.



Safe Harbor

Any activities conducted in a manner consistent with this policy will be considered authorized conduct and we will not initiate legal action against you. Suppose a third party against you initiates legal action in connection with activities conducted under this policy. In that case, we will take steps to make it known that your actions were conducted in compliance with this policy.