Junior Devops Engineer Exercise

Please answer the following questions to the fullest of your knowledge.

Please do not skip questions, answer them by the order they appear in this document.

Best of luck.

Docker:

Please select only 3 key considerations when writing a dockerfile for a microservice based on java spring boot framework, please explain why you chose those 3.

- Clear and understandable comments

- The ability to pass arguments

- Multi stage build

- Clean and understandable code

- Layer unification

- Proper tagging  
- Cached layers

- Image size

- Bigger layers upfront

- Proper tagging

- Naming convention  
- Fast build time

- Using slim versions as base

- Working with volumes

Kubernetes (EKS):

Please explain in your own words what is the difference between nodeSelector and nodeAffinity  
Please list at least 1 distinct use case for each.   
  
In a deployment yaml, how do i verify that the resources i need for the running pods are guaranteed by the k8s.  
  
Terraform:  
A company is planning to build a terraform modules library.  
The architect is suggesting a single git repository to house all the modules in a flat folder hierarchy.  
Is this the best approach?   
If yes, please explain the benefits, if not, please suggest a different design.