Problem Statement for Product Manager

Problem Statement 1:

Title: Product Requirement and Low-Fidelity Wireframes

Background/Task:

- A security product requires scanning container images and showing users the findings.
- Container images contain applications with their dependencies and all these components might have known vulnerabilities.

As a user:

- I need to understand which container images have vulnerabilities and how severe they are.
- If there are any critical or high vulnerabilities, I need to fix them and thus need to identify which images have to be fixed.
- I have thousands of images in my repository.
- Help us build a product requirements/wireframe that can help users solve the above problems.

Deliverables:

- Create a Product Requirements document for the above.
- Create low-fidelity wireframes for the user interface for this product.
- (Bonus/Optional Task) Identify development action items that can be discussed with the development team

Problem Statement 2:

Title: Kubernetes Security Scan

Background/Task:

- Install local K8s cluster (such as Minikube, K3s, Kind, etc) and use a tool such as Kubescape (or any other tool) to scan for findings and send the list of the findings.

Deliverables:

- A JSON file containing the k8s findings.

Problem Statement 3 (Technical):

Step #1:

- Create a GoLang Program which reflects the current date & time and host it on GitHub
- Push that code to DockerHub
- In other words: Use docker to create a web application with date & time as the only content

Step #2:

Using the declarative approach to deploy the container with 2 replicas to k8s

Step #3:

Expose the app to the Internet (on WAN)

Resource Hint/Help:

- For k8s resources, you can use Qwiklabs (https://www.qwiklabs.com/ (https://www.qwiklabs.com/)) it gives you around 30 to 60 mins of k8s resources or you can use your own GCP account or any online available platform like https://labs.play-with-k8s.com (https://labs.play-with-k8s.com), etc