Task: To develop and deploy an image generation API.

Functional Requirements
1. A secure deployed API endpoint that can generate images based on a user prompt.
2. The user prompt can be only text or text + reference images.
3. The endpoint should return a permanent URL of the generated image
4. The main API service should be scalable to handle thousands of image-gen requests simultaneously.

Technical Requirements
For development:
1. Use NodeJS + Typescript for your runtime.
2. If you had to use a database for any persistence, use an SQL based database.

For deployment:
1. Use AWS as the cloud provider.
2. Use Terraform as the Infrastructure as Code tool.

Evaluation Criteria
1. The requirements above are deliberately broad. We'll evaluate how you make sense of them, and expand on them to make a concrete solution.

2. Whether you have met the functional and technical requirements (Important! Submissions that don't meet the criteria will likely be rejected).
3. Your infrastructure choices for the deployment stack.
4. Best practices for NodeJS.

Guidance on AI Assistance
At Chronicle every engineer uses AI assistance in their day-to-day work. We just have one policy: no matter who wrote your code, if you submit a PR, you are responsible for understanding how it works.

How to Submit
1. Submit a link to a public Github repository with your code.
a. Make sure it has a ./setup script that deploys code to AWS and returns a working URL.
2. Submit a link to your deployed application.
3. Submit a 5 minute walkthrough video explaining your implementation. Here are a few things (not exhaustive) that it can contain:
a. A rationale for your software design choices.
b. Problems you encountered and how you solved them.
c. Your usage of AI-assisted coding tools, and how they helped (or didn't).