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Dear *Stori's* Hiring team,

In order to propose a solution to the challenge of generating image thumbnails efficiently, I focused on using **AWS services**. **CloudFormation** allows defining the entire infrastructure in declarative templates, simplifying management and maintenance of the thumbnail generation process over time.

My solution leverages **AWS S3** and **Lambda**. **S3** provides scalable storage for original and thumbnail images, while **Lambda** offers inherent scalability for thumbnail generation. In the hypothetical case that demand increases significantly, **AWS** would automatically scale resources to handle the load, ensuring consistent performance without manual intervention.

Furthermore, using **Lambda** minimizes server costs as users pay only for the compute time consumed during thumbnail generation. Since the function is triggered only when an image is uploaded, costs are incurred only when the service is actively used. Additionally, **Lambda** eliminates the need to manage servers, freeing up resources for other tasks.

It's important to acknowledge that **CloudFormation** templates can become complex for extremely large-scale deployments. In my experience with this specific challenge, I encountered some initial challenges, such as defining the **Lambda function** and configuring policies in the most robust way. Other infrastructure deployment tools like Terraform offer a different approach to infrastructure management, which may also have its own learning curve.

I have attached the YALM file with all the code.

Thank you for your time and consideration.

Sincerely,

N. Javier Buitrago Aza