Infrastructure Setup for Taylor Swift's Tour Site

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Taylor Shift's Ticket Shop

Project Context:

Imagine stepping into the shoes of a leading contractor agency tasked with a monumental challenge – deploying the infrastructure for Taylor Shift's highly anticipated concert ticket shop.

Taylor Shift, the global sensation, has announced her latest concert, and the world is abuzz with excitement. As the popularity of this event soars, it's not just Taylor's fans who are going to be in a frenzy. Your agency has been entrusted with ensuring that the online ticket shop can handle the colossal surge in incoming traffic on the day ticket sales begin.

The Challenge:

Welcome to the high-stakes world of infrastructure deployment! In this exciting project, you'll step into the shoes of a leading contractor agency entrusted with a crucial mission: deploying the infrastructure for Taylor Shift's highly anticipated concert ticket shop. While Taylor's fans eagerly await their chance to purchase tickets, your agency will be solely responsible for the setup and deployment of the infrastructure.

Here's the twist – the concert ticket store's technical team has already developed the e-commerce application. Your agency's mission is to ensure this application is seamlessly hosted and ready to handle the immense surge in traffic on the day ticket sales commence. Think of it as a behind-the-scenes role, where you're the wizard behind the curtain, making the magic happen.

Key Objectives:

1. Infrastructure Deployment: Your primary goal is to swiftly and effectively deploy the existing e-commerce application's infrastructure. While we won't have time for elaborate architectural designs, your infrastructure deployment should prioritize scalability and reliability.
2. Documentation: The technical team responsible for the ticket store should be able to manage and maintain the infrastructure in the long run. That means you must provide the necessary documentation ensuring that every configuration and process is transparent and comprehensible. Given that developers often prefer concise documentation, the README format will serve as an ideal platform for conveying essential information efficiently
3. Cost Estimates: The CFO of the ticket store is keeping a close eye on costs. We'll need you to estimate infrastructure costs based on varying levels of visitor traffic. This means developing a clear understanding of cost implications as traffic scales up.
4. Deadline Sensitivity: Time is of the essence. The countdown to Taylor Shift's concert has already begun, so we need solutions that can be implemented quickly without compromising quality.

As the infrastructure deployment experts, you'll collaborate as a team to ensure that the ticket shop's online platform can withstand the enormous demand expected on the day of ticket sales. The spotlight is on you to deliver an infrastructure that is not only scalable and reliable but also efficiently documented and cost-effective.

Are you up for the challenge? Taylor Shift's fans are counting on you to ensure a seamless ticket-buying experience, and the clock is ticking!

Instructions:

Infrastructure Deployment:

You will be tasked with deploying an e-commerce application that's already developed and available as a Docker container. For the sake of simplicity, we will utilize a generic PrestaShop Docker image available at PrestaShop Docker Hub. Alongside this application, your responsibility includes provisioning the necessary database. Your primary challenge is to determine the infrastructure resources needed for deploying the application and its database in a scalable manner.

Cost Estimation:

To estimate costs, you can use a benchmarking process to measure the response capacity of a single server for a specific route within the application and extrapolate from there. This can be accomplished using tools such as 'ab' (Apache Benchmark). Your goal is to explore different configurations and settings to assess how they impact the overall project cost.

Deliverables:

Your project should encompass the following deliverables:

1. Infrastructure Code: The Terraform (or cdktf) code used to provision the infrastructure.
2. Documentation: A comprehensive README file that serves as a quick reference guide for managing the infrastructure.
3. Cost Analysis: An analysis of estimated costs based on different infrastructure configurations and benchmarking results.
4. Presentation: Prepare a brief presentation summarizing your infrastructure choices, cost estimates, and key considerations.

Evaluation

Practical criteria (12 pts):

- A working solution (8 pts)
    - eCommerce application deployment connected to a Database (2 pts)
    - Database provisionning (2 pts)
    - Scale-ready infrastructure (3 pts)
- Best practice adherence (4 pts)
    - Secret handling (2 pts)
    - Code organisation, modules, variables, variable descriptions (1 pts)
    - Environment separation (prod, staging, dev) (1 pts)

Theoretical criteria (7 pts):

- The benchmark and cost estimation (3 pts)
- Readme for developpers (4 pts):
    - Clarity (2 pts)
    - Briefness (1 pts)
    - Solution design choices (1 pts)

Presentation (3 pts)

Deadline:

Time is of the essence, so ensure that your project is completed within the specified deadline.

Let's embark on this exciting infrastructure deployment journey! 🚀

Ajouter un travail

Statut de remise

Statut des travaux remis	Aucun devoir n'a encore été remis
Statut de l'évaluation	Non évalué
Temps restant	9 jours 6 heures restants
Dernière modification	-